

DAILY METAL REPORTER

MONTHLY SUPPLEMENT

# METALS

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SEPTEMBER

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## Two LINE Editorials

"Who Are the Middle Classes?" asks an editorial in a London paper. Wouldn't they be the classes just between the upper and lower Classes?

The California Institute of Technology has just completed its report of its study of the problem of supplying the world's needs in 2056. Meanwhile lots of us are still struggling with the problem of how to get the things we need in 1956.

Russian visitors to Paris expressed great admiration for the Venus de Milo. Well, anyhow, she made herself famous by disarmament.

Astronomical experts announce the discovery that existing methods of computing time are inaccurate and the second must be reduced by two millionths of one per cent. Is that why the days are beginning to seem shorter?

The idea of a neutral zone in Europe might be all right — if we didn't have to accept Russia's definition of neutrality.

A Memphis banker says that women control the spending of 85 per cent of the household dollar. And, as any married man can testify, this estimate lacks only 15 per cent of being entirely accurate.

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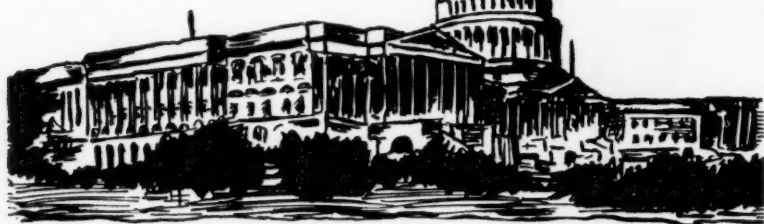
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# Washington Report



September 10, 1956

**W**ITH Congress not in session only routine pronouncements of interest to the metal industry came out of Washington during the month in review.

The General Services Administration again entered the market to purchase domestic lead and zinc for shipment to the long-term stockpile by October 15. The GSA is reported to have accepted all the lead it was offered on tenders which were submitted by August 28. The lead offers were said to have been smaller than those made a month earlier. It was expected that the Government would also accept all tenders of zinc; in July, however the GSA did not take all the zinc it was offered. Meanwhile, the Agriculture Department disclosed it had contracted, in July, to barter \$15,300,000 of Government-owned farm commodities for a like value of strategic materials from abroad which ultimately will be transferred to the Federal stockpile.

## CCC Contracts

When the contracts are carried out, the Agriculture Department will receive \$9,900,000 of beryllium-copper master alloy; \$3,400,000 of manganese ore; \$1,200,000 of mica, and \$800,000 of cadmium. The department's Commodity Credit Corporation disclosed that the reasons why the value of the lead and zinc that was acquired by barter deals was not included in the latest report was that the contracts for these two metals had not as yet been consummated when the report was compiled but would be included in subsequent announcements.

The July figure compares with \$28,300,000 in July of last year and with \$104,900,000 for the entire 1956 fiscal year.

Concerning beryllium, the Atomic Energy Commission on September 7 revealed that it had contracted to buy 1,000,000 pounds of reactor-grade beryllium metal from The Beryllium Corp., Reading, Pa., and Brush Beryllium Co., Cleveland, Ohio, at an average cost of \$47 a pound. Each company will supply 500,000 pounds of the metal on a unit price basis over a five-year period, AEC said.

## Aluminum Meetings

Meetings have been held or are scheduled, concerning aluminum. Aluminum smelters urged the Government to bar scrap aluminum exports, at a meeting with Business and Defense Services Administration representatives in late-August. Smelters said a drastic reduction in such exports is necessary because of the decreasing scrap supply available to the industry. The export quota for the last two quarters have each been 4,000 tons. Smelters also recommended that no aluminum be called for the Government stockpile during the first half of 1957.

At a subsequent meeting of scrap

aluminum dealers with BDSA officials, on August 30, dealers asserted there is no shortage of scrap aluminum in this country, and that the smelters' problem was one of price.

BDSA has scheduled further meetings with other segments of the aluminum industry, including primary producers of prime products. BDSA is not expected to take any action, at least on scrap aluminum exports, until after its meeting with the primary and prime product group.

## Nickel Expansion

The Office of Defense Mobilization has discussed its premium price plan to encourage expansion of nickel production with nine producers. Under the program the Government would sign a contract with a company guaranteeing a premium price for the metal to "cover unusual development costs." The nickel could be sold to the Government at this price each quarter.

In mid-August the Government removed nickel anodes from the list of materials that must be set aside at foundries and mills for defense use. The change, BDSA officials said, was made because the anodes should not have been put on the set-aside list at all because by definition they are finished products.

On September 8 the U. S. Bureau of Foreign Commerce removed export restrictions on nickel-alloy copper scrap to friendly nations, provided the scrap will be converted to nickel metal and returned to this country. BFC pointed out that export of all other nickel-bearing scrap, including nickel-copper alloy scrap for consumption abroad, remains under total embargo.

## First Half Copper Supply

The supply of copper raw materials available for consumption and export in the U. S. during the first half of

1956 was slightly in excess of demand, according to a compilation of reports by the BDSA's Copper Division. Through May the available supply of copper was nearly in balance (except for January), and in June a large surplus developed because of a decline in consumption, the agency said.

Brass mill consumption, the division reported, dropped sharply with respect to both refined copper and scrap, reflecting a hesitancy on the part of customers who may have anticipated a price decrease, as well as a desire to reduce inventories.

## Mineral Prospecting Funds

ODM in mid-August told the Interior Department it could spend another \$6,000,000 to help private prospectors finance their hunt for strategic minerals.

Under a 1951 law, Uncle Sam picks up half the tab for exploration for bauxite, chromium, copper, fluorospar, graphite, lead, molybdenum, zinc and cadmium. The Government will pay 75 per cent of the prospecting costs of firms looking for 23 other minerals, including uranium, tungsten, mercury and nickel. The latest grant brings to \$34,000,000 the total funds authorized by the ODM for the program.

## Titanium Output Tops Use

Titanium production in the U. S. has been substantially ahead of consumption during the past year. Figures provided by the Interior Department show that for the last six months of 1955 and the first six months of 1956 domestic output was 8,803 short tons of titanium sponge metal. Imports for consumption during the period was 901 short tons, whereas U. S. consumption for this period was 6,656 short tons.

Domestic production has kept well ahead of consumption, Interior reported, with most of the surplus going into Government inventory.

## BDSA Reservists

Executives of metal and steel companies are included among the latest appointments to the National Defense Executive Reserve of the BDSA. Designation of the additional members brings to 149 the number thus far selected as reservists by the agency.

Industry executives selected as members of the NDER agree to accept certain responsibilities for the Federal Government in event of emergency, and to perform limited services in peacetime.

BDSA also named Lewis P. Favorite, an executive of Aluminum Co. of America, as Director of the agency's Aluminum-Magnesium Division.

## Gov't Expansion Aid

Steel companies have been filing applications for tax help from the Government to aid them to expand their facilities. The steel industry as a whole has filed on expansion worth \$781,200,000. Apparently the industry is hoping for a decision favorable to them in the study now being carried on by the Government to see if the tight supply of certain steel items warrants opening the so-called expansion goals under which steel

(Continued on page 19)

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# ADEQUATE COPPER PRICE NECESSARY TO PROVIDE ABUNDANT SUPPLY FOR EXPANDING REQUIREMENTS

Research Shows That Every Ton Lost to Competitive Materials Is More Than Offset by New Uses and Demands of Ever-Increasing Population

By ROY H. GLOVER, Chairman, The Anaconda Company

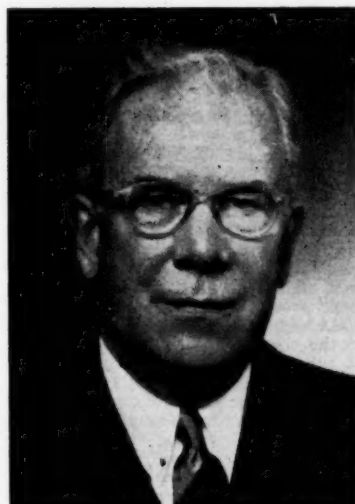
**T**HERE are several basic principles involved in any discussion of the mining or any other industry. Naturally, an analysis of the uses to which our product might be put is interesting in this regard, and these uses, insofar as copper production is concerned, are approximately as follows:

	Percentage
Military and naval .....	13.9
Construction and building materials .....	12.9
General components, such as machine tools, gaskets, hand tools, screw machine products, valves, fittings, machine shop products, etc. ....	10.3
Electrical equipment .....	10.5
Motor Vehicles .....	8.5
Light and power engines and turbines .....	4.9
Communication equipment, such as telephone and telegraph .....	4.2
Consumer durable goods, such as furniture, washing machines, refrigerators, sewing machines, etc. ....	4.5
Railroad equipment .....	3.1
Scientific and technical equipment .....	3.
General industrial equipment, such as dairy and food processing machinery, petroleum refineries, compressors, elevators, conveyors, etc. ....	2.9
Electronic devices .....	2.
Metal working equipment ..	1.5
Other miscellaneous, such as shipbuilding, aircraft pumps, water systems, agricultural machinery, oil field machinery, etc. ....	17.8

An analysis of this distribution will disclose that copper, in its uses, affects every phase of modern living.

Naturally, the need for production depends upon people, who are consumers, and to that end it is desirable to consider the extent to which people are becoming available in the world and who are and will be customers.

Until the age of transportation and communication, which really got under way in the fifteenth century, the



ROY H. GLOVER

population of the world, insofar as we have knowledge, remained static throughout the thousands of centuries of human history. Each area was only able to support the population that the general area could provide with such things as food, shelter and clothing. There would exist famine and starvation in areas which would today consider next door to areas in which there was an excess over the needs of the population. Beginning particularly at about the middle of the fifteenth century transportation and communication began to make itself felt in population changes. Whereas the millions upon millions of years of the history of the earth had produced a world population by 1650 of only about 545,000,000, the year 1955 saw a world population of 2,682,000,000 or an increase of 400 per cent.

Whereas the population of Europe in this period of three hundred years increased from 100,000,000 to 573,000,000, the population of North America increased from 1,000,000 to 182,000,000, or 18,000 per cent, and that of South and Central America from 12,000,000 to 182,000,000 or 1400 per cent; and whereas the population of Africa in this same period increased only from 100,000,000 to 213,000,000, or 100 per cent, the population of Asia increased from 330,-

000,000 to 1,517,000,000, or approximately 350 per cent.

In the last five years the best estimate, as published in the United Nations Year Book of 1955, is that this total human population has increased by approximately 178,000,000, or at the rate of 35,600,000 per year.

## U. S. Capita Consumption

You will, I believe, immediately appreciate the importance of these figures when I tell you that last year, with only 7 per cent of the world's population, the United States of America consumed approximately 50 per cent of the world's production of copper, thus representing a consumption of fifteen and one-half pounds of newly mined copper per capita as against one and one-half pounds per capita for the rest of the world. In order to maintain our present standard of living it is necessary that we have for our disposition approximately the fifteen and one-half pounds of this material for each man, woman and child in this country. The difference in per capita consumption represents substantially the difference between our standard of living and the average of the rest of the world.

The history of mankind has been that of progression from one age to another. From relics and recorded history we know that man passed slowly from the stone age to the bronze age and from the bronze age to the iron age. His progress from thence to the steel age was almost instantaneous in point of time in comparison with his previous slow progress from one age to the other. Even though we currently hear that we are approaching the atomic age, the fact is that it will still remain the steel age. Atomic energy for peaceful purposes in industry will merely replace other types of fuel in generating that energy which moves steel from an inert mass into a servant of mankind.

Therefore, probably one can determine the future of industry generally more clearly from a study of the projections of the future of the steel industry than from any other single source, and this factor has been pretty well analyzed and publicized during the last few months. Thus, we find that in the United States the projected increase in steel manufacturing capacity in the 5-year period to 1960 is from 128,000,000 tons to

Excerpts of address at meeting of Montana State Press Association, Livingston, Mont., August 18, 1956.

METALS, SEPTEMBER, 1956



145,000,000 tons, or 13.3 per cent. The increase in the Free World is from 228,000,000 tons to 281,500,000 tons, or 23.3 per cent. We find that in the Iron Curtain countries the increase is from 69,000,000 tons to 102,700,000 tons, or 48.8 per cent. This makes an increase in world steel capacity from 297,000,000 to 384,200,000 tons by 1960, or a total world increase of 29 per cent.

Without copper, steel is an inert mass. Copper furnishes the nervous system through which energy flows, transforming steel into the greatest servant known to mankind. In accomplishing this process there has been used in the United States during the past five years an average of one and thirty-seven hundredths pounds of copper for each hundred pounds of steel. This ratio holds steadily, even in spite of substitutions, such as aluminum. If we assume that the steel industry will operate at 100 per cent capacity, there would be required to meet the projected world steel capacity by 1960, 5,260,000 tons of copper. This capacity, however, is rarely fully utilized. Historically there is at least an 8 per cent surplus. On this basis a fair assumption would be that by 1960 4,620,000 tons of new copper would be required. Projections from known projects disclose that there will be available at present prices, by 1960, 4,242,000 tons of mine and plant capacity which, with return from scrap, should bring the available copper in that year to the required amount, indicating that during this period the projected world steel and copper outputs should have approximately the same balance as in the year 1955.

Understanding labor relations and adequate price structures are the two all-important factors in maintaining this balance. On the basis of our projections the question after the next five years is not going to be whether there will be a market for our production but rather how can production be increased adequately to meet the ever-increasing demand caused by new technologies and applications and ever-increasing populations.

Anaconda is moving rapidly and decisively to fulfill its full share of the obligation that we feel is imposed upon us as producers of this indispensable material. Our projections disclose that Anaconda's production in the United States will have increased by 44.5 per cent from 1956 to 1961, or from 175,000 tons to 253,000 tons, which we estimate will be much greater than the total overall increase in the United States during that period of time. This is because some other properties will have ceased production, while in still others production will be on a reduced basis. Likewise, in Chile we are moving forward in every possible way to meet what we conceive to be the ever-increasing demand. With proper distribution and application and with prices sufficient to encourage production of available low-grade and high-cost ores there need be no fear but that copper, as heretofore, will continue in adequate supply to carry on its vital functions.

In our operations during the past ten years we have expended in the development of new plants and prop-

erties and increased production in our various operations more than \$350,000,000, and for the period of the next five years we anticipate at least equaling this ten year expenditure. This will mean that during the fifteen year period Anaconda will have expended in such projects more than the total book value of all of the Anaconda properties at the end of World War II.

In our Montana operations we have plans that call for expenditures in excess of \$140,000,000 during the next five years, in addition to those expenditures that are regularly made in our normal operations. This is in addition to huge expenditures that are contemplated in the same period in our other operations, both here and abroad.

#### No More Cheap Copper

The days of cheaply produced copper are gone. Productive ability has not begun to keep pace with increasing wages; \$24.25 per day wages and the need to resort to lower grades of ore to meet ever-increasing demand have resulted in a cost of copper far in excess of what would have a few years ago been considered a reasonable selling price. Of the entire production in the United States during this year of approximately 1,116,000 tons, only about 380,000 tons will be what might be termed low-cost production, and this remaining 736,000 tons is not only indispensable to the economy, safety and well-being of the United States, but also to that of the rest of the world.

In a free economy, copper is one of the elements that depend almost entirely upon price for its production. Grades of ore that would not be minable at 15c copper become minable at 25c copper; and grades that would not be minable at 25c copper become minable at 35c copper; and grades that would not be minable at 35c copper become minable at 45c copper.

At the recent price of 46c the industry was recovering copper from ores of grades as low as one-half of one per cent; and we would have gone to still lower grades if there had been a reasonable prospect of a continuation of that price. With each decline in price the grade must be raised in order to mine the production profitably. Nearly all properties have a "halo" of gradually diminishing grades of ore surrounding the higher grades. At adequate prices the mining of the ores contained in this "halo" is extended as far as the economics of the situation permit. Once, however, this mass of low-grade material is by-passed in a mining operation it is lost forever, because it must be recovered in conjunction with higher grades in order to equalize the two at practical costs.

There are practically unlimited quantities of materials available, here and abroad, that will run less than one-half of one per cent and are now by-passed as uneconomic but which could be recovered if the economics of the situation were such as to permit. With prices to justify the recovery of this vast reserve there would be not only an adequate but an abundant supply of copper available for all possible uses for many years to come. Thus, the problem for the future will not be that of obtaining a cheap product, but rather of main-

taining a price that will result in an adequate supply.

In the earlier days of the mining industry it was considered that grades of ore of less than five per cent copper content were waste and not recoverable. Advancing technology in the industry and higher recovery of copper content, however, have now resulted in the average grade of ores recovered in the United States being reduced to less than one per cent. Further reduction through improved technology can be relatively insignificant for the reason that metallurgical recoveries have now advanced to the place where about ninety per cent of the copper content of the rock is recovered. Therefore, technically there is little room for improvement in copper recovery. The supply of metal in the future will depend upon prices that will not only justify but encourage the mining of ores that are now by-passed in the operation, just as ores of less than five per cent grade were by-passed many years ago.

For many years the management of Anaconda has sensed the approach of the period of possible scarcity which I have heretofore discussed, and to meet this situation we have been searching the globe for additional reserves; and our search has met with outstanding success. Anaconda now has under its control reserves that are unsurpassed by any other entity in the world, and it is our basic philosophy that these vast resources are held by us in trust for the benefit of mankind. We consider it our duty as such trustee to make available to the greatest possible extent the copper content of these ores. As heretofore stated, we have practically exhausted the possible technological advances. The prevention of waste has become necessarily one of economics, which translated means adequate prices to make possible the placing to the benefit of mankind the vast reserves of low-grade ores.

Unfortunately, the industry is divided between low-cost and high-cost producers; and the production of each is indispensable now and for the future. Some low-cost producers are so concerned with the ghost of competition from other materials that they advocate prices based upon their own costs of production without regard to other segments of the industry. High-cost producers, on the other hand, see the drying up of their indispensable production with inadequate prices. This conflict between low and high-cost philosophies is basic in the recent erratic gyrations of the copper market. Abroad, Anaconda has unexcelled reserves for low-cost production; domestically, it must be classed among the high-cost producers.

Our market research, and it has been extensive, has disclosed that the crying need of industry, both here and abroad, is for an available, stable and dependable source of supply. This can be completely accomplished, but only through extensive resort to abundantly available but high-cost sources of supply. Our research also discloses that every ton lost to competitive materials on a price basis is more than offset by new uses and ever-increasing population demands.

# WORLD TIN AGREEMENT SHOULD ACHIEVE OBJECTIVES OF PRICE STABILITY AND ABSORPTION OF SURPLUS

Large Potential Consuming Demand Exists, Particularly in Asia, Which Hinges on Development of These Countries and Higher Living Standard

By CLIFFORD WAITE, Chairman, Consolidated Tin Smelters, Ltd.

**W**ORLD production of tin in concentrates for the calendar year 1955 (excluding the U. S. S. R. and China), as published by the International Tin Study Group was 168,600 tons, practically the same figure as for the preceding year.

Malayan production during 1955 at 61,245 tons surpassed the previous year's total and was the highest production for any year since 1941. Thailand showed a steady increase in her production and it is expected that there will be a further increase during 1956. Indonesia, although maintaining her position as the second-largest producer showed a decline of 2,500 tons on the year 1954.

Bolivian production fell by about 1,000 tons, her production for the year 1955 amounting to 27,921 tons. Nigeria and Australia, which are also of interest to us through the supplies received by two of our subsidiary companies, recorded little change in their production. The remaining large producer — Belgian Congo — showed a slight increase.

## World Consumption of Tin (excluding U. S. S. R. and China)

The International Tin Study Group shows that world consumption of tin for 1955 was 148,400 tons, a significant increase of 9,800 tons on the

year 1954. The United States of America's consumption accounted for 4,700 tons of this increase while the United Kingdom, France, Japan, Denmark and Germany also recorded substantially increased consumption.

## Surplus Production

Tin in concentrates produced exceeded the consumption of tin by 20,200 tons as shown by the above figures. During the year 1955 imports of tin in concentrates into the U. S. A. for the Texas City Smelter amounted to 20,097 tons all of which was "insulated." Whether this "insulated" tin went into stockpile can only be assumed; we do know that it was kept off the market.

The quantity of tin available for industry was consequently barely sufficient to meet the needs of consumers with the result that towards the end of 1955 and early in 1956 tin was temporarily in short supply and the price rose abruptly. The premium for cash tin over forward tin on the London Metal Exchange increased to £65 per ton on the 27th February, 1956, but this premium declined daily during the month of March.

## Tin Price

The average price of tin on the London Metal Exchange during the year ended 31st March, 1956 was £760:17:8d. per ton. During the first half of the year the price remained steady between £700 and £750 but later increased demand and the continued purchases of concentrates by the U. S. Government caused temporary shortages of tin in London

and wide fluctuations in prices. On 27th February, 1956 the London Metal Exchange settlement price reached a peak of £890 per ton. Since that date the price declined gradually to £724 per ton and at the date of this statement was £749 per ton. In Singapore the average price for the year was Malayan \$375.042 per picul, equivalent to £735:1:9d. per ton.

## Outlook for Tin

It is extremely difficult to make a long-term forecast with any degree of accuracy under conditions ruling to-day. Consumption (excluding U. S. S. R. and China) for the years 1952 and 1953 was practically the same, while in 1954 consumption increased by 7,500 tons and in the year 1955 by 9,800 tons which resulted in an increase over the two years of 17,300 tons.

There exists in the world a large potential demand in consuming countries particularly in Asia, but the actual demand for tin containers and other tin bearing materials must naturally depend upon the development of those countries and an increase in their standard of living.

## Texas City Smelter

The U. S. Congress authority for the operations of the Smelter expired on 30th June, 1956 and accordingly it was with considerable interest that the President's Report to Congress on the future of the Smelter was awaited. This Report was presented to Congress on 29th March, 1956 and it examined the question of a tin smelter in the United States of America

Excerpts of address at annual general meeting of Consolidated Tin Smelters, Ltd., London, England, August 23, 1956.

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fully and dispassionately. Its main recommendations were:

(1) that it should be left to private enterprise to determine the practicability of establishing a permanent tin-smelting industry in the United States and

(2) that the United States Government should terminate its operation of the Smelter not later than 30th June, 1956.

However, in forwarding this Report to Congress, the President endorsed a recommendation by the Director of the Office of Defence Mobilization, that Government operation of the Smelter should preferably be continued until 31st January, 1957 in order to allow sufficient time for the completion of negotiations for the sale of the Smelter as a going concern. Subsequently a Bill was passed by both Houses of Congress, authorizing the continuation of operations until the 31st January, 1957 and the closure of the Smelter at that date if no sale or lease has been arranged in the meantime.

#### Texas City Output Insulated

In recent years the production of the Smelter has been "insulated" which probably means that the tin has been diverted to the strategic stockpile. If this is the case then the producing countries have undoubtedly benefited price-wise as not less than 20,000 tons of tin have been diverted from the market for each of the last three calendar years.

In a Report to Congress on the stockpiling program of the U. S. A. in September 1955, the Office of De-

fense Mobilization made the following statement with regard to the tin stockpile:

"Recently the minimum objective has been achieved and by the end of the fiscal year 1956 (i.e. 30th June, 1956) the stockpile will contain or have available sufficient tin metal to meet the long-term objective — enough to meet any foreseeable defense emergency."

#### International Tin Agreement

After a delay of more than two years, Indonesia's ratification of the International Tin Agreement was deposited in London on 16th May, 1956 and the Agreement came into force on July 1st. All the main producing countries except Thailand have now joined the Agreement and ten consuming countries, out of eighteen who were represented at the original Conference. Israel and Korea have both acceded to the Agreement and the Council announced that Turkey was likely to join shortly. At this stage it may be helpful if I summarize the main provisions of the Agreement.

The primary objectives of the Agreement are to prevent excessive fluctuations in the price of tin and to ensure adequate supplies of tin at reasonable prices at all times. These objectives are to be attained by the creation of a Buffer Stock of up to 25,000 tons of tin metal, together with the control of exports from producing countries when at least 10,000 tons of tin have been accumulated in the Buffer Stock and when the Inter-

national Tin Council considers that supplies of tin are excessive.

#### Buffer Stock

The Manager of the Buffer Stock is required to buy and sell tin between a floor price of £640 per ton and a ceiling price of £880 per ton. At £640 he must buy and between £640 and £720 he may buy. Between £720 and £800 he is not permitted to operate. Between £800 and £880 he may sell and at £880 he must sell.

In my opinion, this Agreement should achieve the desired objective of reasonable price stability and ordered absorption of the world surplus of tin when the Texas City Smelter ceases its operations. The Council decided that the initial contributions to the Buffer Stock should become due on 15th September, 1956. The Agreement provides that not more than 75% of any such contribution shall be in tin metal, and the balance shall be in cash; alternatively the whole contribution may be made in cash. The Council announced that producing countries had indicated their intention of making these contributions mainly in cash.

#### Thailand

Eastern Smelting Co. Ltd. continues to receive a fair proportion of the tin concentrates produced by this country. The prolongation of operations at the Texas Smelter will, no doubt, mean that some tonnage may be diverted from the Malayan Smelt-

(Continued on page 19)

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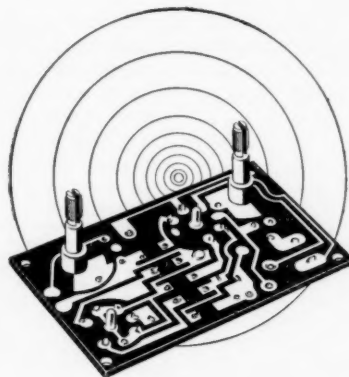
Also, the copper must be free from oxidation as it comes from the mill and without lead inclusions,

present a sufficiently clean surface so that fluxes will wet readily and when automatically soldered the solder coat will be uniform every time . . . free of skips or bald spots. Copper-to-laminate bond strength must be uniform and adequate. Revere Rolled Copper also shall exceed standard specifications as well as meet ASTM B5 specification for purity with a 99.9% minimum rating.

Those were the rigid standards set up by Revere Research Engineers and those are the standards met by the Revere Rolled Copper now available in unlimited quantities. Said one laminator, after using Revere Rolled Copper, "It enables us to give our customers superior copper-clad laminates that present a smoother surface (freer from pits, pinholes, and imperfections) . . . more uniform thickness without sacrifice of conductivity. The result has been, consistently satisfactory etching at better production rates."

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But, whether you order Rolled Copper from Revere or other materials furnished you by other manufacturers . . . the best results and the greatest satisfaction are obtained only when you take your suppliers into your confidence.



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# NERVOUSNESS OVER SUEZ CANAL CONTINUES TO BE MAJOR FACTOR INFLUENCING U.K. METAL PRICES

Unsatisfactory Northern Rhodesian Labor Situation Also Supports Copper;  
Tighter Cash Tin Position Likely; Lead, Zinc Consumption Seen Sustained

By L. H. TARRING

London, England

September 5, 1956

**D**URING the past month the copper market here has been prey to a number of diverse factors, among which varying degrees of nervousness over the political situation in the Middle East have been, perhaps, the most important. After the initial flurry of buying and covering—in which characterized the European scene immediately after Colonel Nasser's announcement that he intended to nationalize the Suez Canal, alarm dwindled somewhat and prices at one time were £35 below the peak figure reached during this initial scare — i.e. £291 compared with £236. Since this, although the political outlook has probably not changed further, other factors have supervened to harden the tone of the market somewhat.

The chief among these has been the uncertainty as to whether the wage negotiations at the Asarco and Kennecott plants at Garfield would be satisfactorily concluded, or whether a strike might break out costing the U. S. market a great deal of copper. The situation in this respect is still a little uncertain, although hopes are gaining ground that a stoppage will be averted. (Editor's Note: Both Kennecott and A. S. & R., since this revision was written, have reached agreements with the unions at their respective plants.)

## Copperbelt Labor Troubles

The other factor which is very much in most people's minds in this country is the very unsatisfactory labor situation in the Northern Rhodesian Copperbelt. The Northern Rhodesia African Mineworkers' Union, after staging a series of short protest strikes at each of the copper mines there in turn, is again causing trouble with a fresh crop of strikes on various pretexts, including the old bone of contention regarding the regulation that native underground workers must wear leg guards.

The root cause of the trouble is the dissatisfaction of this Union with the Management's decision that upgraded African workers who are moved on to a monthly payment basis should join the salaried staff union. Meanwhile, the Rhodesian Government Commission of Enquiry has been appointed to investigate the causes of unrest on the Copperbelt, under the

Chairmanship of Sir Patrick Brangan, Q. C., but how long it will be before the Commission's findings are available, is at present uncertain.

So far these various stoppages have not seriously curtailed Rhodesian production, but there is apprehension that at any time the trouble might get worse and Britain's major source of copper supplies be seriously interfered with.

The expected disposal of copper from the British Government strategic stockpile has not begun. It was thought that the first of the 36,000 tons to be so disposed of would make its appearance in the latter part of August, but a rather naive announce-

ment by the Board of Trade indicated that this had been delayed owing to "administrative problems arising from holidays." If this statement can be taken at its face value, some of this copper should be coming on to the market fairly soon now.

As a result of their activity in the early stages of the Suez dispute, most consumers are pretty well covered for the time being in Europe, and until the political tension is relieved, will probably see that they remain so. In the U. K., however, the volume of new buying has been pretty small in recent weeks, although on the Continent of Europe there have been some periods of activity with German buyers to the fore.

Here the slackness in the motor car industry which has persisted is not a helpful feature, and the failure of British concerns to get some of the major contracts in connection with the big Kariba Dam project in Rhodesia has been a disappointment.

However, consumption on the whole if not at peak levels, is still running at a fair rate, but present indications suggest that over the remaining months of this year, the world will be producing enough copper to meet all anticipated industrial requirements, provided there are no serious strikes to interfere with output at the main centers.

## Tin Outlook

While it is the general view that the political tension over the Suez Canal situation is still exercising a supporting influence on tin prices, in certain other respects the tin outlook has become a little clearer in the last few weeks. The long-threatened major strike of tin miners in Malaya in the end did not materialize, but negotiations between the mine owners and the mine workers' representatives were resumed on a constitutional basis, and it is now hoped that agreement will be able to be reached without any interference with production.

A similar situation developed in Nigeria where discussions have been held and at least some of the points of difference appear to have been resolved.

Since tin is, perhaps, more directly affected than any of the other major metals by the threat of any interruption to free passage through the Suez Canal, it is natural that the present uncertainty should be ever-present in the minds of tin operators, but quite apart from this, the market seems to have a good tone.

With shipments of concentrates being METALS, SEPTEMBER, 1956

## U. K. COPPER STATISTICS

According to statistics received from the British Bureau of Non-Ferrous Metal Statistics, stocks of both blister and refined copper in the U. K. at the end of June at 20,373 tons and 55,815 tons respectively, showed an increase on end of May stocks (18,602 tons and 53,111 tons respectively). Imports into the U. K. during June were 9,024 tons of blister (8,826 tons from Northern Rhodesia) and 30,585 tons of refined (15,612 tons). Production of primary refined during the month was 8,674 tons, 1,069 tons of secondary blister and 9,416 tons of secondary refined. Consumption, full details of which are given below, was 43,622 tons of refined.

	June 1956	1955	Jan.-June 1956
<b>UNALLOYED COPPER PRODUCTS</b>			
Wire (1) .....	21,722	113,735	120,839
Rods, Bars & Sections .....	2,099	9,391	10,406
Sheet, Strip & Plate .....	4,750	32,739	29,290
Tubes .....	4,553	24,748	26,726
Castings & Misc. ..	650	3,000	3,900
<b>ALLOYED COPPER PRODUCTS</b>			
Wire .....	1,435	9,526	9,635
Rods, Bars & Sections .....	10,319	79,125	68,634
Sheet, Strip & Plate .....	9,878	70,639	63,680
Tubes .....	1,866	11,171	11,617
Castings & Misc. ..	6,766	35,391	39,446
Copper Sulphate .....	4,323	20,758	26,479
<b>TOTAL</b> .....	<b>68,361</b>	<b>410,223</b>	<b>411,282</b>

Copper Content of Output .....	55,584	327,633	329,915
Consumption of Refined Copper (2) ..	43,622	244,022	252,310
Consumption of Copper & Alloy Scrap (copper content) ..	11,962	83,611	77,605

Note: (1) Consumption of H. C. Copper and Cadmium Copper Wire Rods for Wire and production of Wire Rods for export. (2) Virgin and Secondary Refined Copper. (3) Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

# AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD			ZINC		
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following	Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages ..	248 17 11	239 17 7	249 8 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11	90 13 4	89 12 3
1955 Averages ..	351 14 11	341 0 3	352 5 6	740 2 12	736 12 11	740 12 8	105 17 3	105 9 6	90 13 4	89 12 3		
1956												
January .....	392 4 7	378 13 10	392 14 1	814 4 4	788 13 2	815 0 11	118 11 4	116 10 0	100 16 9	97 13 2		
February .....	403 15 11	389 2 10	404 3 10	805 10 6	774 0 11	807 3 4	119 7 6	115 8 5	100 8 1	96 7 6		
March .....	419 11 8	410 7 7	420 0 6	805 10 9	780 9 6	807 8 7	121 2 6	113 13 11	101 11 2	98 13 11		
April .....	374 12 9	369 0 6	375 0 6	764 5 6	759 17 0	764 17 6	115 14 3	114 18 9	98 4 10	96 16 2		
May .....	332 15 6	326 9 4	333 2 9	748 10 3	747 15 3	749 1 10	111 10 11	109 16 11	94 16 4	92 17 7		
June .....	296 17 2	298 6 2	297 4 9	742 3 10	736 19 1	742 15 3	113 4 6	111 1 5	94 0 1	92 7 9		
July .....	284 15 3	284 2 1	285 2 9	749 18 2	746 0 8	750 10 5	113 13 2	112 0 10	93 9 8	92 6 10		
August .....	304 7 11	303 19 4	304 14 1	769 7 11	766 7 5	770 0 0	116 1 3	114 9 9	95 11 11	94 0 4		

ing made to America again from Indonesia, the supplies of physical tin to the world market are only barely sufficient to meet industrial requirements at their present level, with the result that a fairly tight prompt position seems to have developed in the United States, and in London it is thought that the cash situation may become tighter within the next few weeks.

No doubt this is due to some extent to the desire of consumers to keep themselves well covered until the future supply outlook is clarified, but with little prospect of any reserve stocks being built up during the next

few months, the market seems to be in basically quite a good position.

This month the producing countries signatory to the International Tin Agreement have to begin making contributions to the Buffer Stock, but it is expected that they will all take advantage of the option to make these contributions in cash at £640 a ton, rather than in metal which currently commands a much higher price.

## Lead Tone Good

In common with the other major metals, lead during the past month did not quite maintain the level of prices reached immediately after the Egyptian demarche over the Suez Canal, but the market has had quite a good tone just recently, and at the time of writing, prices seem to be moving gently upwards.

The political tension in the Middle East undoubtedly helps to keep the undertone of the market reasonably firm. At the moment the major consideration is, of course, the satisfactory level of U. S. domestic demand recently, and the fact that if any surplus should arise in the European market, there is a possibility of disposing of it to the American Government against U. S. surplus farm produce.

The quantities of lead absorbed in this way so far are appreciably smaller than those in the case of zinc, and at the moment it is probably true to say that there is little excess of supplies over current industrial requirements.

The consumption outlook in the U. K. is a little obscure at the moment owing to a certain amount of disquiet on the industrial front, but so far this year lead consumption has

held up very well and if major strikes in the consuming industries are averted, probably will continue to make fairly good showing over the remainder of the year, although it is doubtful whether 1956 will quite match 1955.

## Zinc Demand

Demand for zinc in this country is still affected to some extent by the recession in the motor car industry, but this has not been sufficiently noticeable to prevent zinc prices

(Continued on page 19)

## U. K. TIN STATISTICS

Statistics received from the British Bureau of Non-Ferrous Metal Statistics show stocks of tin at the end of June as 3,424 tons (1,524 tons held by consumers), compared with 3,438 tons at the end of May. Imports during the month totalled only 69 tons and production was 2,060 tons.

Consumption of tin during June was 1,797 tons, breakdown figures of which are given below:

	June 1956	Jan.-June 1955	Jan.-June 1956
TINPLATE .....	700	5,177	4,920
TINNING:			
Copper Wire .....	39	277	251
Steel Wire .....	10	58	56
Other .....	68	428	406
TOTAL: .....	117	761	713
SOLDER .....	273	1,170	1,492r
ALLOYS:			
Whitemetal .....	288	2,004	1,741
Bronze & Gunmetal .....	244	1,270	1,397
Other .....	48	246	227r
TOTAL: .....	580	3,520	3,365
WROUGHT TIN (1) .....			
Foil & Sheets .....	16	198	142
Collapsible Tubes .....	30	228	171
Pipes, Wire & Capsules .....	3	24	24
TOTAL: .....	49	450	337
CHEMICALS (2) .....	69	500	502
OTHER USES (3) .....	9	71	61
	1,797	11,649	11,390r

Notes: (1) Includes Compo and "B" Metal.  
(2) Mainly Tin Oxide. (3) Mainly Powder.  
r-Revised.

## U. K. LEAD STATISTICS

Stocks of both English refined lead and imported virgin at the end of June at 11,043 tons and 26,045 tons respectively showed an increase over end of May totals of 10,176 tons and 20,361 tons. Of the June totals, 7,156 tons of English refined and 15,680 tons of imported virgin were held by consumers. Production of English refined during the month totalled 8,737 tons, and consumption of imported virgin was 16,003 tons and 6,653 tons of English refined.

Full details of consumption as given by the British Bureau of Non-Ferrous Metal Statistics are given below:

	June 1956	Jan.-June 1955	Jan.-June 1956
Cables .....	10,305	53,719	56,527
Batteries - metal .....	2,371	15,264	14,825
Battery Oxides .....	2,355	14,630	14,036
Tetraethyl Lead .....	1,479	11,127	10,505
Other Oxides & Compounds .....	2,429	13,955	12,988
White Lead .....	881	5,750	5,518
Shot .....	354	2,388	2,406
Sheet & Pipe .....	6,574	38,510	36,848
Foil & Collapsible Tubes .....	387	2,601	2,551
Other Rolled & Extruded .....	738	4,139	3,975
Solder .....	1,188	6,904	7,095r
Alloys .....	1,436	8,117	8,329r
Misc. Uses .....	1,004	6,773	6,277r
TOTAL .....	31,501	183,877	181,890r
of which:			
Imported Virgin .....			
Lead .....	16,003	104,748	89,288r
English Refined .....	6,653	33,350	41,377
Scrap including Re-melted .....	8,845	45,779	51,215
r-Revised			

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# United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1956, under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

## COPPER

NOTE—The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. If import tax is restored, the 1956 Geneva Agreement provides for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the price is above 24c; if the price is below 24c the 2c tax would prevail.

Copper ore and concentrates, usable as flux, etc., copper content .....	free
Copper ore and concentrates, product of Cuba and Philippines, copper content .....	free
Copper ore and concentrates, copper content .....	free
Regulus, black, or coarse copper, and cement copper, copper content .....	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content .....	free
Refined copper in ingots, plates or bars, copper content .....	free
Copper rolls, rods or sheets .....	1¼c lb.
Copper seamless tubes and tubing .....	3½c lb.
Copper plain wire .....	12½%
Copper brazed tubes† .....	5.25 lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content .....	free

## BRASS

Brass rods, sheets, plates, bars, strips, muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets .....	2c lb.
Brass tubes and tubing, seamless .....	2c lb.
Brass tubes, brazed, angles and channels .....	6c lb.
Brass and bronze wire .....	12½%

## LEAD

NOTE—Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended Feb. 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content .....	¾c lb.
Bullion or base bullion, lead content .....	1 1/16c lb.
Pigs and bars, lead content .....	1 1/16c lb.
Reclaimed, scrap, dross, lead content .....	1 1/16c lb.
Babbitt metal and solder, lead content .....	1 1/16c lb.
Pipe, sheet, shot, glaziers' lead, and wire ...	1 5/16c lb.
Type metal and antimonial lead, lead content ...	1 1/16c lb.
White lead .....	1.05c lb.
Litharge .....	1¼c lb.
Red lead .....	15/16c lb.
Orange mineral .....	1c lb.

## ZINC

NOTE—Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended Feb. 12, 1952, and reimposed on July 31, 1953. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content .....	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content .....	6/10c lb.
Zinc, old and worn out, fit only for remanufacture .....	¾c lb.
Dross and skimmings .....	¾c lb.
Zinc in blocks, pigs, or slabs .....	7/10c lb.
Zinc in sheets .....	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions .....	1¼c lb.

Zinc dust .....	7/10c lb.
Zinc die-casting alloys .....	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry .....	3/5c lb.
ground in or mixed with oil or water .....	1c lb.

## MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for† .....	1.40c lb.
Aluminum scrap .....	free
Aluminum plates, sheets, bars, rods, circles, squares, etc† .....	2.80c lb.
Antimony ore, antimony content .....	free
Antimony metal and regulus .....	2c lb.
Antimony needle or liquidated .....	¼c lb.
Antimony oxide .....	1c lb.
Antimony sulphides .....	¼c lb. & 12½%
Arsenic, metallic† .....	2.80c lb.
Arsenious acid or white arsenic .....	free
Bauxite, crude* .....	free
Bauxite, refined .....	¼c lb.
Bismuth .....	1½%
Bismuth salts and compounds .....	35%
Beryllium metal and compounds† .....	23½%
Beryllium ore .....	free
Cadmium .....	3¼c lb.
Cadmium flue dust, cadmium content .....	free
Chrome ore or chromite .....	free
Cobalt ore and concentrates, cobalt content .....	free
Chrome or chromium metal† .....	11½%
Cobalt metal .....	free
Magnesium, metallic† .....	17.20c lb.
Magnesium scrap .....	free
Magnesium alloys, powder, sheets, wire† ..	19c lb. & 9½%
Manganese ores, containing over 10% manganese, manganese content .....	¼c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content† .....	33c lb.
Nickel ore, matte and oxide .....	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms .....	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes .....	12½%
Nickel tubes, tubing .....	6¼%
(if cold rolled, drawn or worked—2½% extra)	
Nickel scrap .....	free
Platinum, ores, platinum content, oz. troy .....	free
Platinum, grain, nuggets, sponge and scrap, oz. troy ..	free
Platinum in ingots, bars, sheets, or plates, not less than ⅛ in. thick, oz. troy .....	free
Quicksilver or mercury .....	25c lb.
Selenium and salts .....	free
Tantalum .....	12½%
Tin ore, cassiterite, and black oxide of tin, tin content .....	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f. ....	free
Tungsten ore or concentrates, tungsten content ...	50c lb.

\*Crude bauxite import duty suspended for two years, effective July 16, 1954. †Tariff to be reduced 5% on June 30, 1957 and 5% on June 30, 1958, under Geneva Agreement which expires on June 30, 1959.



# LABOR PACTS AT GARFIELD SMELTER AND REFINERY REMOVE MAJOR THREAT TO DOMESTIC COPPER SUPPLY

African Mines Still Have Trouble; Lead, Zinc, Aluminum Steady; Tin Higher on Suez News; Nickel and Monel Mill Items Increased

September 12, 1956

**W**HILE removal of the major threat to the domestic copper supply featured the metal market during the month in review, the strike situation in the Northern Rhodesia Copperbelt created a feeling of uncertainty. Both Kennecott and American Smelting & Refining Co. have reached agreements with unions at their respective plants in Garfield, Utah. Uncertainty over the Suez Canal situation influenced the market to a lesser degree.

Primary producers maintained their electrolytic copper price at 40.00c a pound delivered; custom smelters offered their electro at 39.00c.

Lead and zinc prices were maintained, at 16.00c a pound New York for the former and at 13.50c a pound for Prime Western zinc at St. Louis. Outside of the regular monthly purchase of both lead and zinc for the long-term stockpile, these markets were featureless.

Of all the major metals, tin was influenced most by the Egyptian waterway crisis, and prices moved up. Spot Straits tin was quoted at 104.125c on September 12, as against the last previously quoted price in this space of 98.75c a pound New York for August 17.

All major primary aluminum producers, as of August 13, were at 27.10c a pound, f.o.b., for 99 per cent plus 30-pound primary ingot. Quick-silver and silver were steady.

While the metallic nickel price was unchanged, at 64.50c a pound, a major factor increased its nickel and monel mill products on September 11. Molybdenum prices were revised on September 1, with alloy quotations reduced about 30 per cent and pure metallic molybdenum increased 20 per cent. A major producer advanced its base prices for wrought and cast beryllium copper alloys 4.00c to 5.00c a pound on September 4.

## Domestic Labor Peace

Consumers were less fretful about their domestic copper supply following settlement of labor difficulties at the smelter and refinery in Garfield, Utah. The possibility of a strike at these two principal facilities had overshadowed the market for some time.

Kennecott Copper Corp. and the United Steelworkers Union agreed on a two-year, 11-month pact covering

## LATE NEWS, PRICE CHANGES

**Copper:** Statistically, copper staged a comeback during August. Refined copper deliveries to domestic consumers rose to 110,128 tons from July's 97,698 tons. Production declined in August, to 122,108 tons from 125,401 tons in the preceding month. Unsold stocks in producers' hand at the end of August amounted to 96,450 tons, an increase of 12,081 tons from the end of July.

Reports from Northern Rhodesia on September 19 were that except for Roan Antelope workers, the turnout of the African daily paid miners in the Copperbelt was normal.

Domestic custom smelters cut their scrap copper buying prices on two successive days, September 18 and 19, by 0.50c a pound each time to a basis of 31.50c for No. 2 heavy copper and wire scrap.

The French agency (GIRM) that does the selling of copper to leading fabricators in France on September 14 advanced its selling price to 310 francs per kilo, equivalent to 39.47c a pound f.a.s. New York, a gain of 65 points over the previous N. Y. equivalent level.

**Tin:** Spot Straits tin was quoted at 105.50c at New York on September 20; prompt metal was quoted at 105.375c.

**Aluminum:** Continued adequate aluminum supplies were predicted over the balance of this year in the latest bulletin of the National Association of Purchasing Agents.

**Nickel:** The nickel supply pinch will continue for a long time, according to Harold A. Berry, manager of purchases and stores, Chicago, Rock Island and Pacific Railroad Co., writing in the latest NAPA bulletin.

**Lead, Zinc:** The Trade Agreement Act should be amended to provide more protection to domestic producers of lead and zinc, according to a brief filed with the House Ways and Means subcommittee by Otto Herres, chairman of the National Lead and Zinc Committee. The brief urged that Tariff Commission findings under the "escape clause" provisions be reported to the Congress rather than to the White House.

workers at the firm's Garfield smelter. Both contracts call for total costs of around 33.75 cents an hour over the life of the agreements. Total wage increases amount to 27.80 cents an hour — 10 cents an hour for the first year, and seven cents an hour in each of the succeeding two years, plus a total of 3.80 cents an hour over the contract length for increments between job classifications.

The Kennecott and A. S. & R. pacts with the union were for a two-year, 11-month period, instead of a full three years, in order to bring the termination date in line with the closing dates of other USW contracts.

The A. S. & R. Garfield smelter treats all the ore mined by Kennecott's big Utah Mine Division; part of the blister copper goes to Kennecott's refinery at Garfield and the remainder is shipped to the eastern seaboard for processing into refined

copper. Output at the Utah Mine has been running at a monthly equivalent of 21,000 tons of refined metal.

## Copperbelt Labor Troubles

While fears of a major stoppage at domestic copper plants has been eliminated, there were strikes in all mines in Northern Rhodesia. Underground operations there were virtually at a standstill. Miners refused to wear leg-guards or post their discs (clock-in) before going underground — both safety precautions insisted upon by the mining firms. At Nchanga, African surface workers were on a sympathy strike and the Bancroft property was completely shut down.

The Northern Rhodesian Government on September 12 declared a state of emergency as a result of the general strike, and 31 persons, not immediately identified, were arrested in the Copperbelt. The declaration stated the emergency has been created by the irresponsibility of the American Mineworkers' Union "whose actions are clearly calculated to disrupt the peace." Reports from Kitwe were that more underground workers who had been on strike were returning to their jobs.

## AMU Claims

The African Mineworkers' Union considers the present situation not a dispute but a struggle for its very existence to end poaching on its membership. It claims the African Staff Association is supported by the mining firms. The recent trouble followed the rolling strikes staged at every Copperbelt mine when members of the AMU went on a 3-day strike at each mine in turn in protest against the advancement agreement the union signed last October, and by which the mines' ASA represents certain categories of supervisory and staff jobs. The AMU now wants the agreement revised.

The London market did not appear to be too greatly perturbed by the situation in Northern Rhodesia, probably because shipments of copper were being made on schedule.

Pricewise, domestic primary producers held to their 40.00c level while custom smelters were at 39.00c a pound delivered. The 39.00c level was established by smelters on August 22 as against the previous range of 39.50-39.75c which prevailed from August 17 to August 21. A moderate volume of business was done by smelters at the 39.00c level.

Smelters were offering 32.50c a pound for No. 2 heavy copper and wire scrap on September 11, which also was the same price last quoted in this space for August 17. During the

August 17-September 11 period, the price dipped on occasion but never by more than 0.50c a pound.

#### Lead, Zinc Stockpiling

Stockpile purchase of lead and zinc, on August 28, continued to help support markets for both metals. Demand for lead has been fairly good and the market undertone firm, with consumers expected to shortly begin placing orders for October shipment. Sales were made on the basis of 16.00c a pound New York and at 15.80c St. Louis.

Demand for zinc was moderate, mainly from galvanizers and die casters, with most of the buying for shipment in October. The bulk of the business was done at 13.50c a pound East St. Louis for the Prime Western grade.

Trade quarters estimated that around 125,000 tons of foreign origin zinc have been acquired by the U. S. Government under barter deals involving U. S. surplus farm products.

#### August Zinc Statistics

Zinc statistics in August made a far better showing than the trade had anticipated. Production of all grades rose to 89,563 tons compared with 83,061 tons in July. Shipments to domestic consumers also were up in August, totaling 70,709 tons as against 34,219 tons in July when the steel mills were on strike. Stocks in producers' hands at the end of August were slightly higher, at 104,325 tons

as against 102,775 tons at the end of July.

#### Tin Prices Higher

Tin was most influenced by the Suez Canal developments. Spot Straits tin was quoted at 104.12½c a pound at New York on September 12 as against 98.75c on August 17, the last previously quoted price in this space.

The high for the August 17-September 12 period was the 104.12½c on September 12, while the low of 98.75c was registered on August 17 and 20; prices during the period thereafter gradually moved upward.

#### Aluminum Use Rise

Industry officials predicted that the U. S. will double its consumption of aluminum in the next nine years. Meanwhile, all primary producers, as of August 13, were uniformly quoting 27.10c a pound for 30-pound, 99 per cent plus aluminum ingot. Secondary aluminum ingots were slightly easier although most smelters anticipate doing a good volume of business in the fourth quarter.

#### Quicksilver Steady

The quicksilver market was featureless during the month in review, with spot European or domestic metal unchanged at \$255 to \$257 per flask of 76 pounds, and which range has been in effect since July 3.

#### Silver Unchanged

The New York silver price held at 90.75c an ounce, with business gen-

erally of a routine nature. The 90.75c level was established on August 10, following a rise of 0.25c an ounce.

#### Revise Molybdenum Prices

A major producer revised its base prices for molybdenum, effective September 1. Average molybdenum-base alloy prices were reduced about 30 per cent, with extruded ingot now priced at \$10.60 a pound, f.o.b. Detroit plant. Pure metallic molybdenum was hiked approximately 20 per cent, with extruded ingot now \$9.60 a pound.

#### Beryllium Alloys Higher

Beryllium Corp. increased its base prices for wrought and cast beryllium copper alloys 4.00c to 5.00c a pound, effective September 4. The increases represent a two per cent rise in the corporation's selling prices for beryllium copper strip, rod, wire, and billets, and a three per cent boost for beryllium copper casting ingots.

Another factor, Penn Precision Products, Inc., announced it would maintain its base prices despite the industry-wide boosts for such items.

#### Nickel Mill Items Advanced

Higher prices for its nickel and monel mill products were posted by The International Nickel Co., nlc., effective September 11. There was no change in the company's metallic nickel price. Advances for the nickel items ranged from 7.00c to 22.00c a pound, and monel products were hiked 6.00c to 14.00c a pound.

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# Daily Metal Quotations in August, 1956

The following quotations are taken from the Daily Metal Reporter  
(In Cents Per Pound)

	Copper			Tin Straits New York		Lead		Zinc		Alum- inum		Anti- mony		Silver				
	Producers' Price	Del. Conn.	Custom Smelters' or Outside Price	Electro Refinery	Lake Del.	Spot	Prompt	New York	Outside St. Louis	Prime West. E. o. b.	Prime West. Del. N. Y.	Brass Spec. E. St. Louis	High Grade Delivered	Spec. High Grade Delivered	30-Lb. Ingot 99% Plus (f. o. b.)	Domestic Spot 99.5%	Lab. Laredo	(Ounce) Per New York
AUGUST																		
1	40.00	39.32	38.50	38.95	40.00	98.75	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.125
2	40.00	39.32	38.50	38.95	40.00	98.125	98.125	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.125
3	40.00	39.00	39.00	39.20	40.00	98.50	98.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.125
4	40.00	39.00	39.00	39.20	40.00	98.50	98.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.125
6	40.00	39.50	39.50	39.45	40.00	99.00	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.25
7	40.00	39.75	39.75	39.575	40.00	99.00	99.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.50
8	40.00	39.75	39.75	39.575	40.00	98.75	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.50
9	40.00	39.75	39.75	39.575	40.00	98.50	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.50
10	40.00	39.75	39.75	39.575	40.00	98.50	98.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	26.50	33.00	33.00	90.75
11	40.00	39.75	39.75	39.575	40.00	98.50	98.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	26.50	33.00	33.00	90.75
13	40.00	39.75	39.75	39.575	40.00	98.625	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
14	40.00	39.75	39.75	39.575	40.00	98.625	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
15	40.00	39.75	39.75	39.575	40.00	98.625	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
16	40.00	39.75	39.75	39.575	40.00	98.875	98.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
17	40.00	39.625	39.625	39.45	40.00	98.75	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
18	40.00	39.625	39.625	39.45	40.00	98.75	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
20	40.00	39.625	39.625	39.45	40.00	98.75	98.625	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
21	40.00	39.625	39.625	39.45	40.00	99.00	98.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
22	40.00	39.00	39.00	39.20	40.00	99.375	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
23	40.00	39.00	39.00	39.20	40.00	99.75	99.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
24	40.00	39.00	39.00	39.20	40.00	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
25	40.00	39.00	39.00	39.20	40.00	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
27	40.00	39.00	39.00	39.20	40.00	99.625	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
28	40.00	39.00	39.00	39.20	40.00	99.50	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
29	40.00	39.00	39.00	39.20	40.00	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
30	40.00	39.00	39.00	39.20	40.00	100.125	100.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
31	40.00	39.00	39.00	39.20	40.00	100.125	99.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
AV.	40.00	39.32	39.32	39.35	40.00	99.049	99.824	16.00	15.80	13.50	14.00	13.75	14.85	15.25	26.70	33.00	33.00	90.614
HL.	40.00	39.75	39.75	39.70	40.00	100.125	100.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	33.00	90.75
LO.	40.00	38.50	38.50	38.20	40.00	98.125	98.125	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	33.00	90.125

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## International Tin Agreement Should Achieve Objectives

(Continued from page 10)

ers during the remainder of the current year.

A steady increase of production is taking place in Thailand and as this country is the fifth largest producer of tin concentrates it is to be hoped that she will accede to the International Tin Agreement and so be able to join the Council as a participating member.

### Nigeria

Production in this country showed little difference from the preceding year.

### Bolivia

I regret to say that there was a further fall in Bolivian production to 27,921 tons which is over 6,000 tons below the annual average before the nationalization of the large mines in 1952. This is a matter of serious concern for Bolivia who depends to such a large extent upon her earnings from the production of tin concentrates. There have, however, been indications during the year that the Bolivian Government are feeling the heavy responsibility of working these large mines particularly during an inflationary period. There have also been indications that the Bolivian Government are considering the gradual transfer of the large mines from the Bolivian Mining Corporation to some form of private ownership. If the Bolivian Government feels that such a step is politically possible it may offer the best prospect of an increase in tin production and a general improvement in the Bolivian economy.

## British Metal Markets

(Continued from page 13)

following the general pattern in recent weeks. That is to say, they have not quite held the highest figures reached in the first flurry over the Egyptian nationalization of the Suez Canal, but are standing at what can only be considered a very satisfactory level.

The fact that America is prepared to take further quantities of foreign zinc under barter transactions is obviously a useful support for the market, which, but for such transactions, would have worn a much less happy appearance than it does at the moment, seeing that something like 100,000 tons of the metal are believed to have been taken off the market in this way.

### Shipyards Labor Trouble

Apart from the problems of the motor car industry, the brass trade may be affected to some extent if the current labor trouble in the Clyde shipyards should persist, but taking the country as a whole, employment is still pretty full, which should mean the maintenance of a reasonably good level of zinc consumption.

Probably the die casting industry is the one that has been most affected by the setback in motor car demand, but even here the position has not been catastrophic.

As with other metals, a settlement of the Suez Canal problem would result in much easier market conditions, at any rate for a time, as the existing political tension is undoubtedly encouraging consumers to keep themselves well covered and is also affect-

ing freight rates on zinc concentrates shipped to this country from Australia and elsewhere.

## Washington Report

(Continued from page 5)

makers would get fast amortization for tax purposes as an incentive to expand their production.

A decision by the Government is not expected for several weeks and maybe months.

The first long-term industrial loan ever extended to a private German industrial concern was announced September 5 by the Export-Import Bank. The August Thyssen Huetten A. G., in Duisburg-Hamborn, West Germany, was granted a \$10,000,000 loan which will enable Thyssen to purchase American machinery for a new steel mill in West Germany.

Other foreign developments including the Presidential appointment of Benjamin F. Fairless, retired U. S. Steel Corp. chairman, to head a citizen's committee to review the U. S. Government's foreign aid programs. This group is expected to make recommendations on Government policy regarding military, economic, technological and other aid programs in the light of foreign policy and national interest.

### Priority Aid Requests

Materials supply conditions in recent months have caused a heavy increase in requests for priority assistance, BDSA Administrator Charles F. Honeywell revealed. The number of inquiries received indicate that many contractors are in need of guidance in order to be up-to-date on the status of current regulations.

## Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade	Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic	C & H	Calumet & Hecla Consolidated Copper Co.	Lake
P. A.	American Smelting & Refining Co. (Mauver, N. J.)	Electrolytic	C. R.	Copper Range Company	Lake
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic	Q. M. CO.	Quincy Mining Company	Lake
B. & M.	Anaconda Copper Mining Co.	Electrolytic			
AE	Andes Copper Mining Co.	Electrolytic			
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic			
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic			
C de P Peru	Cerro de Pasco Corporation	Electrolytic			
C. C. C.	Chile Copper Company	Electrolytic			
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic			
K U E	Kennecott Copper Corp.	Electrolytic			
L. M. C.	Lewin Metals Corporation	Electrolytic			
M U F	Mufulira Copper Mines, Ltd.	Electrolytic			
N A	Norddeutsche Affinerie	Electrolytic			
O R C	Ontario Refining Co., Ltd.	Electrolytic			
A. L. S.	Philips Dodge Refining Corp. (For Adolph Lewishohn Selling Corp.)	Electrolytic			
L. N. S.	Philips Dodge Refining Corp.	Electrolytic			
P * D	Philips Dodge Corporation	Electrolytic			
N. E. C.	Raritan Copper Works	Electrolytic			
R E C	Rhodana Corporation	Electrolytic			
B O R	Rudnici Bakra i Topionice	Electrolytic			
U M K	Union Miniere du Haut Katanga	Electrolytic			
D R W	†United States Metals Refining Co.	Electrolytic			
AMCO	†United States Metals Refining Co.	Electrolytic			
OFHC	†United States Metals Refining Co.	Electrolytic			
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic			

†Subsidiary, The American Metal Co., Ltd.

### Brand or Marks

C & H  
C. R.  
Q. M. CO.

### Brand or Marks

B. C. R.  
N. H. E.  
A M CO  
R H C

### Brand or Marks

\* \* \* (3 Star)  
K C M  
M T D  
P. D. M.  
R

### Producer

Calumet & Hecla Consolidated Copper Co.  
Copper Range Company  
Quincy Mining Company

### Producer

British Copper Refiners, Ltd.  
Nassau Smelting & Refining Co., Inc.  
United States Metals Refining Company

### Producer

Braden Copper Company  
Kennecott Copper Corporation  
Messina (Transvaal) Development Co.  
Phelps Dodge Corporation  
†United States Metals Refining Company

### Grade

Lake  
Lake  
Lake

### Grade

Fire Refined High Conductivity  
Fire Refined High Conductivity  
Fire Refined High Conductivity

### Grade

Fire Refined (other than Lake & Fire Refined High Conductivity)

### Official List of Approved Refiners Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.	Mufulira Copper Mines, Ltd.
Anaconda Copper Mining Co.	Norddeutsche Affinerie
Andes Copper Mining Co.	Ontario Refining Co., Ltd.
Bolidens Gruvaktiebolag	Phelps Dodge Refining Corp.
Canadian Copper Refiners, Ltd.	Phelps Dodge Corporation
Cerro de Pasco Copper Corp.	Raritan Copper Works
Chile Copper Company	Rhodana Corporation
Consolidated Mining & Smelting Co.	Rudnici Bakra i Topionice
Falconbridge Nickel Mines, Ltd.	Union Miniere du Haut Katanga
Kennecott Copper Corp.	United States Metals Refining Co.
Lewin Metals Corp.	Zinnwerke Wilhelmsburg G.m.b.H.



# Copper Statistics Reported by Copper Institute

## Combined Totals in U. S. A. and Outside U. S. A.

	Crude Production		(In tons of 2,000 pounds)		Refined Stock End of Period	Stock Increases or Decreases		
	Primary	Secondary	Refined Production	Deliveries to Customers		Blister	Refined	Total
1955								
June	232,058	11,898	240,499	248,449	209,945	+ 3,416	-10,015	- 6,599
July	167,746	8,279	159,499	149,643	219,643	+16,626	+ 9,698	+26,324
Aug.	195,394	10,138	208,974	200,049	230,022	- 3,441	+10,379	+ 6,938
Sept.	236,949	13,788	248,481	262,118	228,002	+ 2,256	- 2,020	+ 236
Oct.	245,462	11,439	244,255	246,898	227,261	+12,646	- 741	+11,905
Nov.	229,736	9,304	239,963	248,827	218,519	- 1,283	- 8,819	-10,025
Dec.	214,114	11,713	250,349	247,222	221,331	-24,522	+ 1,643	-21,710
1955 Total	2,613,662	133,065	2,728,309	2,744,391	221,331	+18,418	- 8,552	+11,112
1956								
Jan.	233,897	11,250	237,300	242,425	217,315	+ 7,847	- 4,016	+ 3,831
Feb.	228,409	11,355	243,458	236,841	226,686	- 193	+ 9,371	+ 9,178
Mar.	243,676	14,293	258,462	261,814	225,827	- 493	- 859	- 1,352
Apr.	232,986	14,716	254,462	242,244	238,125	- 6,760	+12,298	+ 5,538
May	233,963	18,608	266,551	253,871	249,365	-13,051	+11,240	- 2,740
June	238,814	11,360	251,382	236,714	266,221	+ 1,309	+14,091	+15,130
July	233,182	11,174	240,633	198,800	303,225	+ 3,723	+37,004	+40,727
Aug.	240,388	9,971	242,319	224,890	315,243	+ 8,040	+12,018	+20,058

### In U. S. A.

1955								
June	90,645	11,295	130,881	133,739	38,533	.....	- 4,807	.....
July	31,346	7,614	51,182	60,143	36,293	.....	- 2,240	.....
Aug.	67,990	9,364	98,732	90,516	49,350	.....	+13,057	.....
Sept.	96,343	12,739	139,880	145,590	53,625	.....	+ 4,275	.....
Oct.	99,514	10,279	127,865	134,844	49,738	.....	- 3,887	.....
Nov.	94,287	7,888	133,711	142,830	48,736	.....	- 1,002	.....
Dec.	93,186	10,912	145,423	139,512	61,554	.....	+12,818	.....
1955 Total	1,036,702	124,760	1,467,448	1,446,354	61,554	.....	+14,446	.....
1956								
Jan.	96,732	10,353	123,917	130,431	50,016	.....	-11,538	.....
Feb.	89,326	11,697	127,917	139,383	47,053	.....	- 2,963	.....
Mar.	99,681	12,596	144,027	141,590	51,595	.....	+ 4,542	.....
Apr.	95,499	13,780	140,032	139,927	54,887	.....	+ 3,292	.....
May	98,208	17,475	142,445	140,587	53,443	.....	- 1,444	.....
June	98,496	12,471	136,713	131,299	60,671	.....	+ 4,463	.....
July	84,787	10,387	125,401	97,698	87,944	.....	+27,273	.....
Aug.	90,858	9,511	122,108	110,128	96,450	.....	+ 8,506	.....

### Outside U. S. A.\*

1955								
June	141,413	603	108,317	114,710	171,412	.....	- 5,208	.....
July	135,900	765	109,659	89,500	183,350	.....	+11,938	.....
Aug.	127,405	774	110,242	109,533	180,672	.....	- 2,678	.....
Sept.	140,606	1,049	108,601	116,528	174,377	.....	- 6,295	.....
Oct.	145,948	1,160	116,490	112,054	177,523	.....	+ 3,146	.....
Nov.	135,089	1,419	107,097	105,997	169,783	.....	- 7,740	.....
Dec.	120,928	801	104,926	107,710	159,777	.....	-10,006	.....
1955 Total	1,576,960	8,305	1,260,861	1,298,037	159,777	.....	-21,752	.....
1956								
Jan.	137,165	897	113,502	111,994	167,299	.....	+ 7,522	.....
Feb.	138,918	1,808	115,541	97,458	179,633	.....	+12,334	.....
Mar.	143,995	1,697	114,435	120,224	174,232	.....	- 5,401	.....
Apr.	137,487	936	114,430	102,317	183,238	.....	+ 9,006	.....
May	135,755	1,133	124,106	113,284	195,922	.....	+12,684	.....
June	140,318	1,136	114,669	105,415	205,550	.....	+ 9,628	.....
July	148,395	787	115,232	101,102	215,281	.....	+ 9,731	.....
Aug.	149,530	460	120,211	114,762	218,793	.....	+ 3,512	.....

\*Excluding Russia, Yugoslavia, Norway, Sweden, Japan, Australia.

### Electrolytic Copper

Producers' Price, Del. Valley

Monthly Average Prices

(Cents Per Pound)

	1953	1954	1955	1956
Jan.	24.60	29.88	30.24	43.00
Feb.	25.46	29.88	33.00	44.03
Mar.	31.49	29.93	33.222	46.00
Apr.	30.59	29.98	36.00	46.00
May	29.72	30.00	36.00	46.00
June	29.94	30.00	36.00	46.00
July	29.92	30.00	36.00	41.56
Aug.	29.69	30.00	37.81	40.00
Sept.	29.75	30.00	43.00	.....
Oct.	29.80	30.00	43.00	.....
Nov.	29.88	30.00	43.00	.....
Dec.	29.88	30.00	43.00	.....
Aver.	29.15	29.27	37.522	.....

### Electrolytic Copper

Custom Smelters' Price, Del. Valley

Monthly Average Prices

(Cents Per Pound)

	1953	1954	1955	1956
Jan.	24.50	29.75	30.48	50.22
Feb.	25.804	29.75	33.00	52.07
Mar.	33.269	29.866	33.667	53.11
Apr.	31.18	29.965	36.00	48.88
May	29.785	30.00	36.00	44.221
June	29.875	30.00	36.00	40.00
July	29.846	30.00	36.00	38.14
Aug.	29.375	30.00	40.14	39.32
Sept.	29.50	30.00	50.00	.....
Oct.	29.606	30.00	45.99	.....
Nov.	29.75	30.00	45.84	.....
Dec.	29.75	30.00	49.42	.....
Aver.	29.35	29.944	39.38	.....

### Lake Copper

Producers' Price, Delivered

Monthly Average Prices

(Cents Per Pound)

	1953	1954	1955	1956
Jan.	24.625	30.00	30.12	43.00
Feb.	24.625	30.00	33.00	43.783
Mar.	32.00	30.00	33.56	46.00
Apr.	32.23	30.00	36.00	46.00
May	Nom.	30.00	36.00	46.00
June	30.125	30.00	36.00	46.00
July	30.125	30.00	36.00	41.68
Aug.	30.125	30.00	37.46	40.00
Sept.	30.125	30.00	43.00	.....
Oct.	30.125	30.00	43.00	.....
Nov.	30.125	30.00	43.00	.....
Dec.	30.038	30.00	43.00	.....
Aver.	29.47	30.00	37.51	.....

## Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consumd. by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1950						
Total	290,241	92,372	288,392	313,052	1,438,327	-218,831
1951						
Total	280,402	32,147	295,385	303,050	1,392,111	-285,886
1952						
Total	333,455	32,652	292,157	275,312	1,389,451	-201,362
1953						
Total	380,881	25,022	309,664	170,917	1,375,869	-74,678
1954						
Feb.	349,661	26,227	305,670	122,999	94,975	-52,781
Mar.	341,693	28,836	304,065	123,887	103,796	-57,423
Apr.	341,616	30,677	302,391	124,559	104,943	-54,667
May	349,796	33,210	305,504	123,039	102,810	-45,537
June	351,518	43,723	304,833	122,218	104,531	-31,810
July	370,287	41,104	307,352	130,576	80,751	-26,537
Aug.	359,474	58,007	302,423	131,514	102,966	-16,456
Sept.	341,726	50,650	300,603	148,515	106,628	-56,742
Oct.	330,787	50,240	299,068	135,140	116,232	-53,181
Nov.	335,315	55,517	301,097	137,076	114,392	-47,341
Dec.	360,526	58,125	304,619	136,581	99,479	-22,549
Total	.....	.....	.....	.....	1,232,090	.....
1955						
Jan.	334,105	66,122	302,658	159,016	136,539	-61,447
Feb.	323,425	75,840	301,597	180,898	118,786	-83,230
Mar.	311,235	85,859	301,937	187,827	143,544	-92,670
Apr.	316,575	88,992	304,117	205,308	115,073	-103,868
May	327,343	111,715	309,219	323,279	113,485	-102,440
June	327,696	126,703	309,972	234,578	132,377	-90,151
July	312,587	165,505	301,048	286,095	75,846	-109,051
Aug.	304,097	150,854	303,089	283,653	97,688	-131,791
Sept.	334,996	133,391	314,111	270,102	113,628	-115,826
Oct.	353,469	135,075	313,048	275,255	115,453	-99,759
Nov.	373,314	139,855	313,779	283,953	122,332	-84,563
Dec.	389,974	139,094	314,145	293,264	127,006	-78,341
Total	.....	.....	.....	.....	1,412,287	.....
1956						
Jan.	376,753	143,815	312,128	305,942	138,711	-97,502
Feb.	388,823	135,637	319,279	282,314	130,923	-77,133
Mar.	392,143	140,348	319,056	291,465	135,746	-78,030
Apr.	413,979	135,071	319,247	266,239	118,839	-36,436
May	435,083	131,023	318,592	249,352	122,253	-1,838
June	451,126	114,223	324,970	227,097	113,835	+13,282
July	465,015	109,040	334,584	220,810	81,275	+18,661

## Scrap Copper Receipts by Custom Smelters and Refineries in United States\*

(In Short Tons)

	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	7,080	10,172	17,084	15,768	6,640	4,528	6,486	9,859	11,047	14,322
Feb.	5,394	11,890	20,238	12,500	5,153	3,633	10,357	8,490	15,198	14,497
Mar.	9,187	11,954	20,678	12,538	7,912	5,243	19,991	9,738	12,198	15,921
Apr.	13,065	15,125	15,968	12,304	8,553	6,214	16,584	9,004	13,162	17,233
May	14,264	16,857	14,237	8,749	8,458	8,033	10,857	8,687	15,133	20,805
June	9,883	11,178	8,809	20,523	8,628	4,425	10,945	13,309	14,765	14,758
July	8,578	8,370	7,782	10,040	6,642	5,188	9,063	10,260	9,988	12,632
Aug.	8,572	17,081	8,246	10,452	6,113	5,003	7,137	10,100	12,197	12,510
Sept.	10,611	16,001	10,980	4,903	3,661	4,667	9,042	10,641	15,037	.....
Oct.	8,532	10,854	6,401	9,458	5,336	4,602	10,065	11,662	12,897	.....
Nov.	8,049	7,625	16,847	9,327	3,179	4,724	7,815	10,879	9,865	.....
Dec.	9,164	11,826	10,533	7,178	4,538	6,208	11,476	14,876	13,180	.....
Total	112,386	147,931	166,303	142,067	71,812	62,370	129,798	127,449	154,714	.....

\*As compiled by Copper Institute.

## Brass and Bronze Ingot Monthly Shipments

(Net Tons)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	29,196	27,841	26,998	19,456	18,874	28,416	23,315	24,423	20,681	25,201	27,736
Feb.	24,680	24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920	25,849	24,949
Mar.	27,176	17,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653	29,713	28,810
Apr.	30,228	24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,748	27,641	25,808
May	27,323	19,525	23,716	11,114	23,643	33,267	21,740	21,660	22,269	23,708	23,497
June	31,349	16,325	24,401	9,327	25,093	35,817	21,274	20,818	22,348	23,141	18,342
July	26,677	16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074	18,513	17,364
Aug.	27,896	18,589	24,098	14,194	26,689	25,285	21,807	20,156	21,684	27,018	23,812
Sept.	27,390	19,025	23,641	16,208	28,811	22,285	22,770	21,463	22,464	26,349	.....
Oct.	31,461	22,806	21,659	18,026	32,240	23,124	25,811	22,280	24,080	25,325	.....
Nov.	29,232	21,666	21,731	18,488	31,748	28,644	23,441	21,860	23,061	25,102	.....
Dec.	27,206	23,862	20,954	17,960	26,675	20,987	22,958	20,541	21,274	21,448	.....
Total	339,724	263,711	279,500	176,643	308,663	332,878	277,736	271,251	263,233	298,406	.....
Aver.	28,310	21,976	23,292	14,687	25,717	27,616	23,145	22,604	21,936	24,867	.....

METALS, SEPTEMBER, 1956

## Mine Production of Copper in United States

(U. S. Bureau of Mines)  
(In short tons)

	Eastern	Missouri	Western	Total
1953				
Ttl.	38,900	2,374	885,174	926,448
1954				
Dec.	4,156	137	77,124	81,417
Ttl.	40,302	1,925	793,241	835,472
1955				
Jan.	5,054	175	78,071	83,300
Feb.	5,339	185	77,968	83,492
Mar.	6,655	220	86,894	93,769
Apr.	5,644	190	83,320	89,154
May	4,606	199	86,019	90,824
June	5,192	189	84,011	89,392
July	4,678	169	28,496	33,343
Aug.	5,028	125	62,082	67,235
Sept.	6,928	130	83,213	90,271
Oct.	6,552	195	85,445	92,192
Nov.	6,188	184	84,681	91,053
Dec.	6,758	179	81,638	88,575
Ttl.	68,622	2,140	921,838	992,600
1956				
Jan.	6,674	163	87,682	94,519
Feb.	6,688	164	82,560	89,412
Mar.	7,347	198	90,398	97,943
Apr.	6,821	195	88,594	95,610
May	6,960	191	92,513	99,664
June	6,720	173	88,550	95,443

## Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1954				
Av.	26.75	25.22	23.69	22.92
1955				
July	37.39	35.89	34.04	33.06
Aug.	39.93	38.43	36.40	34.24
Sept.	43.88	42.38	40.00	38.21
Oct.	39.48	37.98	36.69	35.83
Nov.	40.08	38.58	36.33	36.34
Dec.	42.75	41.25	38.79	38.71
Av.	37.035	35.535	33.59	32.70
1956				
Jan.	42.39	40.89	38.42	38.26
Feb.	43.35	41.85	39.35	38.65
Mar.	45.77	44.27	41.77	41.02
Apr.	41.65	40.15	37.65	38.15
May	36.06	34.56	32.06	32.50
June	33.32	31.82	29.32	29.03
July	32.69	31.19	28.69	28.98
Aug.	34.269	32.769	30.269	30.75

\*Of dry content for material having a dry copper content in excess of 60%.

## Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)  
(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1954				
Av.	26.59	25.07	20.99	16.24
1955				
June	34.79	33.29	27.77	20.63
July	36.83	35.33	30.15	22,536
Aug.	39.74	38.24	32.67	23.76
Sept.	43.88	42.38	35.01	24.96
Oct.	39.48	37.98	32.22	22.80
Nov.	40.08	38.58	33.15	22.53
Dec.	43.58	41.22	34.84	24.22
Av.	36.63	35.02	29.905	22.35
1956				
Jan.	42.39	40.89	35.22	24.51
Feb.	43.35	41.85	34.72	24.79
Mar.	45.77	44.27	36.46	27.76
Apr.	41.65	40.15	34.40	24.49
May	36.06	34.56	29.58	19.89
June	33.32	31.82	26.37	18.40
July	32.69	31.19	26.89	18.43
Aug.	34.269	32.769	29.833	20.463

# United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)  
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1952 .....	25,339	532,778	558,117	43,560	492,091
1953 .....	43,560	533,883	577,443	81,152	488,437
1954 .....					
September .....	84,429	47,762	132,191	93,358	30,891
October .....	93,358	51,276	144,634	95,496	36,307
November .....	95,496	46,711	142,207	94,387	34,913
December .....	94,387	46,506	140,893	92,719	37,017
Total .....		551,618	632,770		475,551
1955 .....					
January .....	92,719	44,780	137,499	84,882	40,451
February .....	84,882	40,173	125,055	64,938	46,645
March .....	64,938	50,308	115,246	59,881	42,381
April .....	59,881	50,274	110,155	54,956	44,878
May .....	54,956	45,435	100,391	50,947	46,130
June .....	50,947	48,150	99,097	44,665	44,985
July .....	44,665	23,850	68,515	39,856	26,547
August .....	39,856	36,912	76,768	34,111	41,469
September .....	34,111	50,453	84,564	30,753	46,250
October .....	30,753	53,747	84,500	29,913	52,062
November .....	29,913	52,623	82,536	28,855	51,370
December .....	28,855	50,448	79,303	31,089	48,171
Total .....		547,153	639,872		531,339
1956 .....					
January .....	31,089	51,306	82,395	32,469	49,746
February .....	32,469	49,475	81,944	41,450	39,411
March .....	41,450	54,174	95,624	52,089	39,344
April .....	53,089	52,976	105,065	53,958	44,986
May .....	53,958	47,961	101,919	50,460	40,703
June .....	50,460	47,367	97,827	45,951	41,458
July .....	45,951	48,479	94,430	49,134	36,483

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

## Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sun- dries	Job- bers	Unclas- sified
1950 .....	66,646	28,854	3,304	93,297	6,374	60,118	10,450	230,594
1951 .....	70,149	32,099	2,063	75,337	5,583	48,248	3,550	259,155
1952 .....	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953 .....								
Total .....	76,283	34,415	2,136	80,339	5,716	55,936	6,390	227,222
1954 .....								
Jan. ....	6,273	2,955	....	5,077	964	5,051	628	16,160
Feb. ....	6,040	2,170	....	5,890	798	3,682	254	17,717
Mar. ....	7,620	2,405	252	6,663	149	6,818	492	23,438
Apr. ....	6,207	2,550	361	6,341	308	5,194	342	25,798
May .....	6,030	2,310	276	5,635	250	4,621	1,020	20,041
June .....	6,116	3,700	122	5,711	406	6,525	1,114	23,293
July .....	4,000	1,500	....	6,690	415	4,121	861	19,608
Aug. ....	8,799	3,358	146	6,111	838	5,377	1,152	17,621
Sept. ....	4,602	1,653	564	4,110	20	4,667	851	14,424
Oct. ....	6,142	1,970	657	4,172	383	4,581	829	17,573
Nov. ....	5,816	3,795	333	3,898	520	3,202	721	16,628
Dec. ....	7,707	1,880	100	5,790	141	3,530	906	16,963
Total .....	75,412	30,246	2,811	66,088	5,192	57,369	9,170	229,264
1955 .....								
Jan. ....	7,044	1,570	36	5,158	213	4,451	857	21,122
Feb. ....	5,869	3,200	348	6,758	289	4,796	1,013	24,373
Mar. ....	6,538	2,340	614	6,897	240	3,807	1,167	20,778
Apr. ....	5,909	2,625	201	6,533	463	5,178	1,234	22,735
May .....	6,145	2,950	251	8,127	321	4,435	1,145	22,756
June .....	6,623	950	50	6,833	290	5,175	1,293	23,816
July .....	2,313	150	307	4,365	100	3,763	946	14,603
Aug. ....	5,772	2,800	210	4,794	290	3,741	1,230	22,632
Sept. ....	6,552	2,295	415	7,794	354	4,711	1,149	22,980
Nov. ....	6,606	2,433	70	13,875	387	3,795	874	23,330
Dec. ....	6,275	3,260	35	7,508	449	4,289	839	25,516
Total .....	72,418	27,599	2,622	88,461	3,960	52,994	13,034	270,251
1956 .....								
Jan. ....	7,777	3,075	200	6,555	290	8,538	917	22,394
Feb. ....	5,974	2,435	384	5,983	275	3,592	871	19,897
Mar. ....	6,786	1,300	101	4,903	321	3,915	1,331	20,687
Apr. ....	6,744	2,950	310	4,839	260	3,522	1,376	24,985
May .....	6,490	2,825	...	5,027	131	3,513	964	21,753
June .....	8,502	2,150	...	4,167	186	3,645	1,021	21,787
July .....	3,497	904	...	5,007	80	2,859	1,453	22,683

## Lead Prices at New York

(Common Grade)

Monthly Average Prices

(Cents per pound)

	1953	1954	1955	1956
Jan. ....	14.192	13.26	15.00	16.16
Feb. ....	13.50	12.82	15.00	16.00
Mar. ....	13.404	12.94	15.00	16.00
Apr. ....	12.64	13.91	15.00	16.00
May .....	12.75	14.00	15.00	16.00
June .....	13.413	14.11	15.00	16.00
July .....	13.683	14.00	15.00	16.00
Aug. ....	14.00	14.06	15.00	16.00
Sept. ....	13.74	14.60	15.12	....
Oct. ....	13.50	14.975	15.50	....
Nov. ....	13.50	15.00	15.50	....
Dec. ....	13.50	15.00	15.56	....
Av. ....	13.485	14.06	15.14	....

## Lead Sheet Prices

(To Jobbers, Full Sheets)

Monthly Average Prices

(Cents per pound)

	1953	1954	1955	1956
Jan. ....	19.192	18.26	20.00	21.66
Feb. ....	18.50	17.82	20.00	21.50
Mar. ....	18.404	17.94	20.00	21.50
Apr. ....	17.64	18.91	20.00	21.50
May .....	17.75	19.00	20.00	21.50
June .....	19.413	19.11	20.00	21.50
July .....	18.683	19.00	20.00	21.50
Aug. ....	19.00	19.06	20.00	21.50
Sept. ....	18.74	19.60	20.12	....
Oct. ....	18.50	19.975	20.50	....
Nov. ....	18.50	20.00	20.50	....
Dec. ....	18.50	20.00	20.56	....

## Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers.

(In thousands of units)

	1953	1954	1955	1956
Jan. ..	1,571	1,788	1,478	2,005
Feb. ..	1,162	1,422	1,647	1,805
Mar. ..	1,202	1,194	1,321	1,313
Apr. ..	1,245	1,150	1,281	1,331
May ..	1,455	1,391	1,572	1,714
June ..	2,004	1,834	1,794	1,760
July ..	2,528	2,288	2,024	2,024
Aug. ..	2,707	2,481	2,774	....
Sept. ..	2,852	2,728	3,039	....
Oct. ..	2,825	2,667	3,036	....
Nov. ..	2,173	2,410	2,622	....
Dec. ..	1,890	1,796	2,556	....
Total	23,614	23,149	25,147	....



# Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)  
(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	— In base bullion (lead content) — At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti- monial lead	Total Stocks
1954							
June 1	64,103	10,906	1,348	27,105	97,420	11,882	212,764
July 1	61,669	12,241	3,660	26,046	94,828	9,798	208,242
Aug. 1	63,093	17,196	2,592	30,301	80,820	12,210	206,212
Sept. 1	62,851	18,688	2,903	29,792	72,150	12,279	198,663
Oct. 1	63,731	18,771	4,155	29,024	79,190	14,168	209,039
Nov. 1	59,660	17,095	3,265	28,373	80,650	14,846	203,889
Dec. 1	57,452	16,888	2,570	27,816	79,814	14,573	199,113
1955							
Jan. 1	62,074	18,170	1,723	27,164	77,930	14,789	201,850
Feb. 1	59,803	15,485	3,133	29,393	69,980	14,902	192,196
Mar. 1	64,492	17,741	3,781	28,467	52,734	12,204	179,419
Apr. 1	57,577	20,063	2,309	28,564	47,496	12,385	168,394
May 1	59,686	17,468	3,496	25,373	43,207	11,749	160,979
June 1	59,632	17,705	1,941	27,979	39,892	11,055	158,204
July 1	58,182	14,707	2,941	30,579	34,432	10,233	151,074
Aug. 1	65,476	10,065	1,303	26,792	30,077	9,779	143,492
Sept. 1	75,057	17,183	3,744	29,660	26,859	7,252	159,755
Oct. 1	70,628	19,083	4,217	28,424	23,292	7,461	153,105
Nov. 1	71,257	20,682	4,276	28,596	21,828	8,085	154,724
Dec. 1	64,109	20,232	4,377	27,486	19,592	9,263	145,059
1956							
Jan. 1	71,812	16,532	3,764	27,625	21,196	9,893	150,822
Feb. 1	70,690	19,082	1,764	25,632	24,080	8,389	149,637
Mar. 1	71,023	16,406	2,583	27,519	32,355	9,095	158,981
Apr. 1	72,358	15,655	2,152	28,065	41,800	10,289	170,319
May 1	74,837	15,500	2,718	24,181	43,268	10,690	171,194
June 1	78,987	15,477	2,475	26,682	39,558	10,902	174,081
July 1	81,796	15,837	4,423	28,505	36,499	9,452	176,512
Aug. 1	76,985	16,856	3,516	29,603	32,210	10,924	176,094

## Receipts of Lead in Ore and Scrap By U. S. Smelters (a)

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	Receipts of lead in ore			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1952 Total	405,990	98,276	504,266	41,845	546,111
1953 Total	351,183	155,788	506,971	42,994	549,965
1954					
August	28,835	12,820	41,655	4,060	45,715
September	25,244	20,807	46,051	4,450	50,501
October	26,884	12,561	39,455	5,134	44,579
November	29,107	8,622	37,729	5,628	43,357
December	29,646	16,020	45,666	4,457	50,123
Total	336,291	158,081	494,372	49,864	544,236
1955					
January	28,767	11,502	40,269	3,509	43,778
February	27,456	17,400	44,856	2,738	47,594
March	30,056	11,104	41,160	3,291	44,451
April	28,707	16,347	45,054	3,249	48,303
May	28,511	13,377	41,888	4,879	46,767
June	28,273	14,667	42,940	4,509	47,449
July	23,027	3,826	26,853	649	27,502
August	30,249	11,859	42,108	3,942	46,050
September	29,377	14,881	44,258	3,623	47,881
October	30,073	20,845	50,918	5,655	56,573
November	27,736	13,022	40,758	3,802	44,560
December	29,363	24,136	53,499	3,150	56,649
Total	341,595	172,966	514,561	42,996	557,557
1956					
January	27,184	15,704	42,888	6,346	49,234
February	28,569	16,528	45,097	4,577	49,674
March	31,568	17,904	49,472	3,989	53,461
April	31,786	15,224	47,010	4,252	51,262
May	32,715	18,476	51,191	4,711	55,902
June	31,546	16,251	47,797	4,541	52,338
July	29,964	13,476	43,440	3,207	46,647

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

## N. Y. Lead Price Changes (Effective Date)

1949	1953
Nov. 16....12.50	Jan. 7....14.50
Nov. 21....12.00	Jan. 12....14.00
1950	Feb. 2....13.50
Mar. 9....11.00	Mar. 4....13.00
Mar. 14....10.50	Mar. 10....13.50
Apr. 20....10.75	Apr. 7....13.00
Apr. 26....11.00	Apr. 16....12.50
May 4....11.25	Apr. 21....12.00
May 10....11.50	Apr. 29....12.50
May 11....12.00	May 18....12.75
June 23....11.50	May 19....13.00
1951	May 26....13.15
June 28....11.00	June 11....13.50
July 12....11.50	July 20....13.75
July 13....12.00	July 23....14.00
Aug. 15....13.00	Sept. 16....13.50
Aug. 21....14.00	1954
Sept. 1....15.00	Jan. 18....13.00
Sept. 8....16.00	Feb. 18....12.50
Oct. 2....19.00	Mar. 9....12.75
Oct. 31....17.00	Mar. 10....13.00
1952	Mar. 26....13.25
Apr. 29....18.00	Mar. 29....13.50
May 2....17.00	Apr. 1....13.75
May 12....15.00	Apr. 12....14.00
June 23....15.50	June 2....14.25
June 24....16.00	June 15....14.00
Oct. 7....15.00	Aug. 25....14.25
Oct. 14....14.00	Sept. 7....14.50
Oct. 22....13.50	Sept. 15....14.75
Nov. 3....14.00	Oct. 4....14.875
Nov. 10....14.20	Oct. 5....15.00
Nov. 11....14.50	1955
Nov. 20....14.25	Oct. 23....15.00
Nov. 24....14.00	15.50
Dec. 22....14.25	Oct. 26....15.50
Dec. 29....14.50	Dec. 29....16.00
Dec. 31....14.75	1956
	Jan. 4....16.50
	Jan. 13....16.00

\*OPA Ceiling. †Returned to OPA Ceiling.  
\*\*OPS Ceiling.

## Antimonial Lead Stocks at Primary Refineries (A. B. M. S.)

	(In tons of 2,000 lbs.)			
End of:	1953	1954	1955	1956
Jan.	11,572	14,691	14,902	8,389
Feb.	10,736	14,798	12,204	9,095
Mar.	11,484	11,985	12,385	10,289
Apr.	11,248	11,977	11,740	10,690
May	10,764	11,882	11,055	10,902
June	14,335	9,798	10,233	9,452
July	14,247	12,210	9,779	10,924
Aug.	14,748	12,279	7,252	.....
Sept.	15,877	14,168	7,461	.....
Oct.	15,742	14,846	8,085	.....
Nov.	16,498	14,573	9,263	.....
Dec.	16,116	14,789	9,893	.....

## Antimonial Lead Production by Primary Refineries (A. B. M. S.)

	(In tons of 2,000 lbs.)			
End of:	1953	1954	1955	1956
Jan.	2,937	3,768	4,529	5,045
Feb.	3,682	4,257	4,777	5,888
Mar.	5,353	4,475	6,202	5,526
Apr.	5,027	4,470	5,343	5,818
May	6,497	4,373	4,737	5,405
June	9,270	3,796	4,792	4,456
July	5,259	5,991	1,153	3,853
Aug.	4,668	6,455	2,946	.....
Sept.	5,509	5,869	6,650	.....
Oct.	5,100	5,532	8,016	.....
Nov.	5,400	5,364	7,985	.....
Dec.	3,060	5,255	6,907	.....
Total	61,762	59,875	64,037	.....

## U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

Metal Products:	1956		
	Jan.-June	May	June
Ammunition .....	23,971	4,274	3,972
Bearing metals .....	14,701	2,353	2,258
Brass and bronze .....	14,770	2,218	2,052
Cable covering .....	69,376	12,454	12,001
Calking lead .....	29,052	4,326	5,820
Casting metals .....	6,138	938	963
Collapsible tubes .....	6,064	967	624
Foil .....	2,082	558	387
Pipes, traps .....			
and bends .....	13,438	2,241	2,196
Sheet lead .....	15,711	2,553	2,594
Solder .....	36,758	6,338	5,529
Storage battery .....			
grids, posts, etc. ....	91,505	15,419	14,828
Storage battery .....			
oxides .....	86,525	14,586	14,195
Terne metal .....	704	83	101
Type metal .....	11,065	1,834	2,005
Total .....	421,860	71,142	69,525
Pigments:			
White lead .....	8,371	1,561	1,418
Red lead and .....			
litharge .....	40,260	6,441	6,720
Pigment colors .....	7,239	1,315	1,204
Other† .....	3,001	1,509	174
Total .....	58,871	19,826	9,516
Chemicals:			
Tetraethyl lead .....	95,797	16,898	16,116
Misc. chemicals .....	1,433	1133	228
Total .....	97,230	17,031	16,344
Misc. Uses:			
Annealing .....	2,595	392	328
Galvanizing .....	814	174	60
Lead plating .....	455	59	65
Weights & ballast .....	3,021	527	652
Total .....	6,885	1,152	1,105
Other Uses			
Unclassified .....	7,801	1,073	1,066
Total Reported .....	*592,647	*100,224	*97,556
Estimated unreported .....			
consumption .....	6,000	1,000	1,000
Grand total .....	598,600	101,200	98,600
Daily average** .....	3,289	3,265	3,287

† Includes lead content of leaded zinc oxide production.

‡ Revised.

\* Includes lead content of scrap used directly in fabricated products.

\*\* Based on number of days in month without adjustment for Sundays or holidays.

## Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks May 31, 1956	Net Receipts in June	Consumed in June	Stocks June 30, 1956
Soft lead .....	*74,591	52,288	62,918	63,961
Antimonial lead .....	*45,895	24,467	25,152	45,210
Lead in alloys .....	9,122	3,751	4,310	8,563
Lead in copper-base scrap .....	1,635	1,586	1,554	1,667
Total .....	131,243	82,092	93,934	119,401

\* Revised.

† Excludes 3,483 tons of lead which went directly from scrap to fabricated products and 139 tons of lead contained in leaded zinc oxide production.

## Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

	JUNE			
	Soft lead	Antimonial lead	Lead in alloys	Lead in copper-base scrap
Metal products .....	35,612	24,653	4,295	1,554
Pigments .....	9,354	23	..	..
Chemicals .....	16,342	2	..	..
Miscellaneous .....	737	368	..	..
Unclassified .....	873	106	15	..
Total .....	62,918	25,152	4,310	1,554

† Excludes 3,483 tons of lead which went directly from scrap to fabricated products and 139 tons of lead contained in leaded zinc oxide production.

## U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1954	1955	1956
Jan. ....	25,786	29,062	31,012
Feb. ....	25,837	28,926	30,125
Mar. ....	29,442	33,225	30,099
Apr. ....	25,820	28,656	28,186
May ....	28,637	31,092	29,752
June ....	28,574	32,627	31,501
July ....	25,968	26,994	26,963
Aug. ....	25,671	26,954	..
Sept. ....	30,631	34,291	..
Oct. ....	30,123	34,121	..
Nov. ....	30,142	34,820	..
Dec. ....	28,840	29,689	..
Total .....	335,887	370,794	..

## American Antimony

Monthly Average Prices  
in bulk, f. o. b. Laredo

(Cents per lb. in ton lots)

	1953	1954	1955	1956
Jan. ....	34.50	28.50	28.50	33.00
Feb. ....	34.50	28.50	28.50	33.00
Mar. ....	34.50	28.50	28.50	33.00
Apr. ....	34.50	28.50	28.50	33.00
May ....	34.50	28.50	28.50	33.00
June ....	34.50	28.50	28.50	33.00
July ....	34.50	28.50	28.50	33.00
Aug. ....	34.50	28.50	30.66	33.00
Sept. ....	34.50	28.50	33.00	..
Oct. ....	34.50	28.50	33.00	..
Nov. ....	33.68	28.50	33.00	..
Dec. ....	28.50	28.50	33.00	..
Av. ....	33.93	28.50	30.18	..

## Lead Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	1956		
	Apr.	May	June
IMPORTS			
U. S.† (s.t.) .....	23,619	21,045	14,765
Canada (s.t.) .....	10	..	..
Denmark .....	903	651	606
France .....	4,435	6,205	3,554
Germany, W. ...	4,687	5,120	..
Italy†† .....	1,820††	..	..
Netherlands .....	4,522	4,084	..
Norway .....	958	712	..
Sweden .....	1,449	1,379	..
Switzerland .....	788	1,369	1,469
U. K. (l.t.) .....	7,623	12,855	21,037
India‡ (l.t.) .....	1,559	1,189	..
EXPORTS			
U. S.† (s.t.) .....	32	..	..
Canada (s.t.) .....	7,636	7,214	6,632
Denmark .....	199	172	17
France .....	1,045	654	351
Germany, W. ...	3,461	3,335	..
Italy†† .....	301††	..	..
Netherlands .....	284	665	..
Switzerland .....	20	..	..
Northern Rhodesia‡ (l.t.) .....	1,480	1,482	..

† Refined.

\* Includes scrap.

†† Includes lead alloys.

‡ British Bureau of Non-Ferrous Metal Statistics.

†† April-May.

## French Lead Imports

(American Bureau of Metal Statistics)  
(In Metric Tons)

	1956		
	Jan.-June	May	June
Ore (gross weight) .....	55,297	6,516	10,585
Greece .....	2,717	..	490
Italy .....	787	..	..
Algeria .....	1,423	..	406
Fr. Morocco .....	46,366	5,516	9,689
French Equat. Africa .....	3,031	1,000	..
Tunisia .....	973	..	..
Non-argenti-ferous .....	27,514	6,205	3,554
Belgium .....	1,673	735	536
Germany (W.) .....	2,776	525	1,051
Algeria .....	63	1	18
Fr. Morocco .....	9,538	2,045	10
Tunisia .....	13,411	2,899	1,938
Other countries .....	53	..	1
Antimonial lead .....	813	331	..

## U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1956		
	Jan.-July	June	July
(Gross Weight)			
Lead and lead alloys .....	92,640	21,037	11,248
Australia .....	53,726	14,085	6,372
Canada .....	24,457	5,225	3,551
Belgium .....	4,844	700	533
Yugoslavia .....	700	150	150
United States .....	951	50	..
Peru .....	4,200	600	600
Other countries .....	3,762	227	42

METALS, SEPTEMBER, 1956



## Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign area also is included.  
(Tons of 2,000 lbs.)

	Stock Begin- ning	Pro- duction	Domes- tic	Shipments			Stock at End	Unfilled Orders at End	Daily Avg. Prod.
				Export & Drawback	Govt. Acct	Total			
1950	TL 94,221	910,354	849,248	18,189	128,256	995,691	8,884	74,795	2,494
1950	Mo. Avg.	75,863	70,770	1,516	10,688	82,974			
1951	TL 8,884	931,833	836,800	32,067	39,949	918,816	21,901	50,509	2,553
1951	Mo. Avg.	77,653	69,733	3,506	3,329	76,568			
1952	TL 21,901	961,430	803,343	56,202	36,626	896,171	87,160	45,264	2,627
1952	Mo. Avg.	80,119	66,945	4,683	3,052	74,681			
1953									
Total	180,843	971,191	818,850	16,326	42,332	877,508	180,843	35,466	2,661
Monthly Avg.		80,933	68,238	1,361	3,528	73,126			2,661
1954									
Feb.	198,712	68,020	57,781	7,179	1,778	66,733	199,994	28,943	2,429
Mar.	199,994	71,186	66,929	1,703	1,448	70,080	201,100	31,702	2,296
Apr.	201,100	70,255	67,512	977	2,489	70,616	200,740	31,702	2,842
May	200,740	73,645	61,859	670	2,037	64,566	209,828	38,624	2,376
June	209,828	71,466	72,257	2,297	5,685	80,239	201,055	33,100	2,385
July	201,124	70,749	59,167	1,475	13,214	73,846	198,027	38,899	2,282
Aug.	198,027	71,810	58,188	1,525	16,871	76,584	198,253	41,059	2,316
Sept.	198,253	60,137	64,548	1,072	12,265	77,885	176,505	48,818	2,004
Oct.	176,505	67,047	73,867	1,468	10,080	90,415	152,137	51,559	2,163
Nov.	152,137	80,119	77,074	2,477	15,066	87,617	134,639	44,042	2,671
Dec.	134,639	85,166	76,106	3,405	17,218	95,728	124,077	45,842	2,747
Total	124,277	868,242	787,922	27,929	108,957	924,808	124,077	45,862	2,379
Monthly Avg.		72,353	65,660	2,327	9,080	77,067			2,379
1955									
Jan.	124,277	86,076	70,863	2,644	19,694	93,201	117,152	57,421	2,777
Feb.	117,152	78,977	80,016	3,743	16,205	99,964	96,165	54,527	2,820
Mar.	96,165	89,179	79,720	1,828	12,959	94,507	90,837	60,057	2,877
Apr.	90,837	83,786	89,589	1,967	8,488	100,044	74,597	65,127	2,793
May	74,597	86,177	83,336	3,802	10,434	97,572	63,184	70,087	2,780
June	63,184	84,458	92,212	1,492	5,335	99,039	48,603	57,231	2,815
July	48,603	84,400	76,812	862	4,039	81,713	51,290	64,056	2,738
Aug.	51,290	84,874	87,042	885	2,153	90,080	46,084	73,632	2,738
Sept.	46,084	83,448	83,664	1,274	2,427	87,365	42,167	52,278	2,781
Oct.	42,167	89,449	85,770	36	1,942	87,748	43,868	61,746	2,886
Nov.	43,868	86,616	91,585	280	1,561	93,426	38,058	64,560	2,921
Dec.	38,058	92,578	87,010	684	1,963	89,657	40,979	72,908	2,986
Total	40,979	1,031,018	1,007,619	19,496	87,200	1,114,316	40,979	72,908	2,825
Monthly Avg.		85,918	83,968	1,625	7,267	92,860			2,825
1956									
Jan.	40,979	90,313	87,723	1,084	1,155	89,962	41,830	60,717	2,918
Feb.	41,830	86,329	84,727	317	2,782	87,826	39,833	45,255	2,977
Mar.	39,833	91,690	84,204	460	6,821	91,485	40,038	53,070	2,958
Apr.	40,038	88,664	74,789	1,437	4,570	80,795	47,907	46,106	2,955
May	47,907	81,238	69,085	287	10,196	69,568	59,577	34,003	2,620
June	59,577	78,321	53,048	539	15,085	68,672	69,226	45,921	2,611
July	69,226	83,080	34,219	811	14,501	49,531	102,775	53,559	2,680
Aug.	102,775	89,569	70,709	1,235	16,075	88,019	104,325	54,629	2,889

## U. S. Consumption of Slab Zinc

Bureau of Mines  
By Industries (Short Tons)

	Galvan- izers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1949 Total	348,544	197,387	84,257	55,100	17,643	702,931
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953 Total	403,162	305,346	177,301	53,784	38,037	977,636
1954						
April	32,970	24,176	8,181	3,933	2,395	71,655
May	32,935	22,081	8,450	3,848	3,028	70,342
June	34,827	23,534	8,860	4,214	2,880	74,665
July	33,897	17,214	6,135	3,006	2,712	63,314
August	38,225	19,891	8,349	4,030	2,684	73,529
September	37,591	20,980	8,505	3,153	3,037	73,616
October	36,407	26,051	9,501	4,181	3,055	79,545
November	34,212	30,572	10,573	3,969	2,785	82,461
December	32,263	31,781	10,961	3,350	2,987	81,342
Total	398,699	286,817	107,293	45,979	33,342	876,130
1955						
January	32,638	32,863	12,313	3,754	3,151	84,719
February	31,601	31,254	10,690	3,912	2,745	80,202
March	37,648	37,682	12,718	4,635	3,305	95,988
April	36,136	36,628	11,034	3,833	3,181	90,812
May	37,471	36,926	12,404	4,203	3,409	94,413
June	37,874	32,821	13,305	5,012	3,227	92,239
July	38,433	23,910	7,017	2,832	2,897	70,589
August	38,317	30,168	10,244	5,431	3,027	87,687
September	39,181	31,804	12,672	4,185	3,507	91,849
October	40,030	35,136	13,961	4,714	3,596	97,940
November	38,116	38,616	13,455	3,952	3,636	98,275
December	37,249	36,982	15,003	3,900	3,621	96,755
Total	439,694	404,790	144,816	50,363	39,302	1,081,468
1956						
January	38,148	36,554	13,097	4,442	3,665	95,906
February	37,702	31,274	12,678	3,883	3,325	88,862
March	38,662	31,332	12,889	4,433	3,566	90,882
April	37,092	29,226	12,635	4,010	3,359	86,322
May	38,064	26,003	12,218	3,431	1,260	80,976
June	37,005	21,790	8,351	3,454	1,315	71,915

METALS, SEPTEMBER, 1956

## Prime Western Zinc Prices

(Cents per pound)  
(In Tons of 2,240 Pounds)

	1953	1954	1955	1956
Jan.	12.596	9.76	11.50	13.46
Feb.	11.48	9.375	11.50	13.50
Mar.	11.024	9.66	11.50	13.50
Apr.	11.00	10.25	11.93	13.50
May	11.00	10.29	12.00	13.50
June	11.00	10.96	12.25	13.50
July	11.00	11.00	12.50	13.50
Aug.	11.00	11.00	12.50	13.50
Sept.	10.18	11.44	12.96	....
Oct.	10.00	11.50	13.02	....
Nov.	10.00	11.50	13.00	....
Dec.	10.00	11.50	13.00	....
Av.	10.857	10.69	12.305	....

## High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages  
(Cents per pound)

	1953	1954	1955	1956
Jan.	13.946	11.11	12.85	14.81
Feb.	12.83	10.725	12.85	14.85
Mar.	12.379	11.01	12.85	14.85
Apr.	12.35	11.60	13.28	14.85
May	12.35	11.64	13.35	14.85
June	12.35	12.31	13.60	14.85
July	12.47*	12.35	13.85	14.85
Aug.	12.60	12.35	13.85	14.85
Sept.	11.53	12.79	14.31	....
Oct.	11.35	12.85	14.37	....
Nov.	11.35	12.85	14.35	....
Dec.	11.35	12.85	14.35	....
Av.	12.207	12.04	13.655	....

\*East of Continental Divide.

## U. K. Zinc Consumption

British Bureau of Non-Ferrous Metal  
Statistics  
(In Tons of 2,240 Pounds)

	1954	1955	1956
Jan.	25,615	29,192	29,779
Feb.	25,286	28,814	29,568
Mar.	29,001	33,451	28,650
Apr.	26,084	27,741	26,348
May	27,551	29,237	27,922
June	29,665	31,467	26,650
July	23,012	23,695	23,825
Aug.	22,102	23,261	....
Sept.	30,413	30,080	....
Oct.	28,543	29,460	....
Nov.	27,901	31,516	....
Dec.	29,344	28,683	....
Total	324,517	346,597	....

## Mine Production of Zinc in United States

(U. S. Bureau of Mines)

	Eastern States	Central States	Western States	Total U.S.*
1952				
Total	185,939	94,410	385,652	666,001
1953				
Total	183,612	57,300	293,818	534,730
1954				
Total	166,487	63,100	234,942	464,539
1955				
Jan.	13,008	5,661	21,878	40,547
Feb.	13,124	5,075	21,437	39,636
Mar.	14,679	6,173	24,840	45,692
Apr.	13,767	6,074	23,436	43,277
May	13,563	5,842	25,200	44,605
June	13,840	5,652	24,044	43,536
July	13,400	5,340	22,643	41,383
Aug.	14,426	5,868	22,339	42,633
Sept.	13,830	5,834	22,490	42,154
Oct.	13,332	5,339	22,496	41,167
Nov.	12,676	5,532	21,347	39,555
Dec.	12,644	5,250	21,721	39,615
Total	162,289	67,640	273,871	503,800
1956				
Jan.	13,830	5,017	21,701	40,548
Feb.	13,975	5,236	23,460	42,671
Mar.	15,058	5,740	27,310	48,108
Apr.	14,172	5,098	25,687	44,957
May	14,834	5,471	27,133	47,438
June	13,730	5,228	26,108	45,066
July	13,028	5,371	24,535	42,934

\*Includes Alaskan output in some months.

## Mine Production of Lead in United States

(U. S. Bureau of Mines)

	Eastern States	Central States	Western States	Total U.S.*
1951				
Ttl.	7,426	152,258	230,723	390,428
1952				
Ttl.	11,252	150,302	228,607	390,161
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Ttl.	8,608	138,940	169,804	317,352
1955				
Feb.	792	12,077	14,558	27,427
Mar.	887	13,187	17,241	31,315
Apr.	940	12,417	15,329	28,686
May	987	12,037	15,908	28,932
June	900	11,918	15,609	28,427
July	828	10,925	14,030	25,783
Aug.	821	12,109	13,883	26,813
Sept.	906	11,676	14,294	26,876
Oct.	924	11,635	15,005	27,564
Nov.	762	11,731	13,482	25,975
Dec.	771	13,628	13,403	27,802
Ttl.	10,379	145,640	177,409	333,409
1956				
Jan.	780	11,633	14,113	26,526
Feb.	1,006	12,100	14,648	27,754
Mar.	1,152	13,232	16,667	31,051
Apr.	978	11,948	16,699	29,625
May	991	12,497	16,360	29,848
June	862	11,492	16,909	29,263
July	719	11,459	15,930	28,108

\*Includes Alaskan output in some months.

## Mine Production of Gold in United States

(U. S. Bureau of Mines)

	Eastern States	Western States	Alaska*	Total
1952				
Ttl.	1,948	1,650,660	233,428	1,886,036
1953				
Ttl.	1,529	1,689,668	273,479	1,964,676
1954				
Ttl.	1,731	1,577,216	252,794	1,831,741
1955				
Jan.	208	138,773	58	139,039
Feb.	156	134,363	72	134,591
Mar.	203	147,862	2,674	150,739
Apr.	162	145,103	15	145,280
May	144	147,595	7,287	155,026
June	156	139,993	20,668	160,817
July	140	92,322	39,661	132,123
Aug.	171	119,327	40,931	160,429
Sept.	170	139,811	52,153	192,134
Oct.	182	140,812	43,486	184,480
Nov.	168	144,837	35,530	180,535
Dec.	166	143,827	5,000	148,993
Ttl.	2,026	1,634,625	247,535	1,884,186
1956				
Jan.	121	132,919	1,977	135,017
Feb.	154	130,264	866	131,284
Mar.	198	134,331	62	134,591
Apr.	156	136,360	522	137,038
May	175	140,040	4,130	144,345

\*Alaska totals based on mint and smelter receipts.

## U. S. Silver Production\* (A.B.M.S.)

(In thousands of ounces: commercial bars, 0.999 fine, and other refined forms)	Dom.†	For.	Total
1952 Total	40,245	36,653	76,898
1953 Total	34,697	37,764	72,461
1954 Total	38,059	39,422	77,481
1955			
January . . .	3,416	3,125	6,541
February ..	2,753	2,851	5,604
March . . . .	3,560	2,780	6,340
Apr. . . . .	3,068	2,896	5,964
May . . . . .	3,075	2,224	5,299
June . . . . .	3,089	3,134	6,223
July . . . . .	596	930	1,526
August . . . .	2,005	1,669	3,674
September . .	2,840	2,855	5,695
October . . . .	2,432	3,889	6,321
November . . .	3,087	2,775	5,862
December . . .	3,180	3,652	6,832
Total . . . . .	33,101	32,780	65,881
1956			
January . . . .	3,249	4,159	7,408
February . . . .	3,615	4,033	7,648
March . . . . .	3,790	3,550	7,340
April . . . . .	2,898	3,191	6,089
May . . . . .	2,905	3,709	6,614
June . . . . .	2,501	2,248	4,749
July . . . . .	3,828	2,838	6,666

\*The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

## Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

	Eastern States	Missouri	Western States	Alaska*	Total
1953 Total	158,707	223,500	36,354,685	39,111	36,776,003
1954 Total	142,180	283,600	36,121,368	35,140	36,582,288
1955					
March	15,987	39,770	3,570,772	413	3,626,942
April	10,540	36,590	3,238,813	1	3,285,944
May	13,086	35,539	3,381,060	1,062	3,430,747
June	13,592	35,350	3,033,664	2,591	3,085,197
July	9,997	32,910	2,331,064	5,098	2,379,069
August	12,360	38,100	2,723,552	5,477	2,779,489
September	11,517	37,180	2,927,151	6,954	2,982,802
October	15,152	35,540	3,145,297	6,704	3,202,693
November	12,476	36,040	2,963,360	4,735	3,016,611
December	11,831	37,556	2,849,045	750	2,899,182
Total	159,038	438,000	36,103,723	33,804	36,734,565
1956					
January	4,664	30,880	2,869,878	316	2,911,551
February	12,252	32,430	2,967,837	82	3,012,601
March	16,536	34,370	3,243,598	11	3,294,513
April	6,918	32,050	3,212,308	61	3,251,337
May	13,870	33,500	3,065,881	545	3,113,596

\*Alaska totals based on mint and smelter receipts.

\*\*Includes a total of 3,708 oz. from Illinois.

## Production of Primary Aluminum in the U. S.\*

(U. S. Bureau of Mines)

	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	54,536	50,023	67,954	76,934	89,895	116,247	128,203	140,394
Feb.	49,749	54,493	62,740	72,374	92,649	110,483	116,236	132,762
Mar.	54,852	58,747	70,022	77,069	104,460	122,339	130,272	145,895
Apr.	54,076	58,024	67,701	76,880	102,071	120,434	126,394	144,726
May	56,909	51,929	67,720	80,803	105,464	125,138	131,128	150,800
June	54,184	60,400	67,454	77,476	104,152	120,758	127,634	145,726
July	55,777	63,518	72,698	78,368	109,285	126,161	132,669	151,624
Aug.	52,001	63,006	73,816	85,175	110,545	125,296	133,551	.....
Sept.	49,742	54,449	69,429	76,882	109,333	120,332	130,606	.....
Oct.	45,790	62,915	72,647	77,312	108,219	125,089	134,655	.....
Nov.	35,865	62,276	72,246	74,639	105,636	121,252	133,689	.....
Dec.	34,161	65,897	72,454	83,419	110,291	127,056	140,748	.....
Total	603,462	718,622	836,881	937,330	1,252,013	1,460,565	1,565,721	.....

\*Based on producers' reports to War Production Board to July, 1946. Thereafter to Bureau of Mines. The monthly figures are preliminary in nature and will not add to the totals derived from the Bureau's annual industry canvases.

## Average Silver Prices

	(Cents per fine ounce)			
	1953	1954	1955	1956
Jan.	84.44	85.25	85.25	90.35
Feb.	85.25	85.25	85.25	90.90
Mar.	85.25	85.25	85.25	91.138
Apr.	85.25	85.25	87.08	90.875
May	85.25	85.25	88.928	90.75
June	85.25	85.25	89.71	90.46
July	82.25	82.25	90.49	90.14
Aug.	85.25	85.25	90.75	90.614
Sept.	85.25	85.25	90.795	....
Oct.	85.25	85.25	91.794	....
Nov.	85.25	85.25	91.46	....
Dec.	85.25	85.25	90.45	....
Ave.	85.183	85.25	89.116	....

Note — The averages are based on the price of refined bullion imported on or after August 31, 1942.

METALS, SEPTEMBER, 1956

## U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)  
(In tons of 2,000 lbs.)

	1956		
	Jan.-July	June	July
Ore, matte & reg. (cont.)	68,489	8,515	10,982
Canada	14,120	2,893	3,976
Mexico	7,531	506	805
Cuba	8,358	1,478	95
Bolivia	2,276	...	828
Chile	11,451	1,728	2,104
Peru	7,785	1,302	1,538
Cyprus	2,173	...	...
Philippines	6,137	...	820
U. of S. Africa	7,765	550	478
Australia	781	36	303
Other countries	112	22	35
Blister copper (content)	137,025	29,106	21,003
Canada	1,038	988	...
Mexico	23,145	1,988	3,844
Chile	79,912	13,928	11,575
Peru	5,633	...	1,482
Belg. Congo	4,346	1,086	543
N. Rhodesia	9,736	4,454	560
U. of S. Africa	1,388	...	555
Turkey	3,271	1,632	...
Australia	8,556	5,030	2,444
Refined cathodes and shapes	115,230	14,683	16,782
Canada	49,577	4,893	8,840
Mexico	1,842	110	...
Chile	28,458	4,446	3,298
Peru	12,478	2,629	1,651
Belgium	551	...	...
Germany (W.)	2,738	276	...
Norway	4,300	950	700
Sweden	224	...	...
U. Kingdom	3,293	280	56
Yugoslavia	138	...	...
Belg. Congo	3,596	599	593
N. Rhodesia	7,241	...	1,644
Japan	800	500	...

### Total Imports:

Crude and ref.	320,744	52,304	48,767
In rolls, sheets or rods	5,884	898	643
Old and scrap (content)	3,631	504	246
Composition metal (cont.)	38	...	3
Brass scrap & old (cu. cont.)	3,191	184	311

## U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)  
(In tons of 2,000 lbs.)

	1956		
	Jan.-July	June	July
Ore, conc. (cont.)	...	...	...
Slabs, blocks, etc.	5,100	647	629
Canada	3	...	3
Mexico	400	...	110
Cuba	54	9	...
Brazil	32	...	...
Chile	38	...	...
Belgium	672	224	112
Germany (W.)	112	56	...
Netherlands	14	...	...
U. Kingdom	3,360	336	336
Korea	380	...	63
Other countries	35	22	5
Scrap: Ashes, dross & skim.	10,326	2,159	591
Semi-fabricated forms, not elsewhere specified	3,084	473	...

## Comparative Metal Prices

	Av. 1939	1946	OPA 1956
Copper, Domestic (Electro, Del. Valley)	11.20	14.375	39.00
Lead (N. Y.)	5.05	8.25	16.00
P. W. Zinc (E. St. Louis, f. o. b.)	5.05	5.05	13.50
New York, del.	...	...	14.00
Tin, Spot Straits, N. Y.	...	...	105.50
Aluminum Ingot 99.9%+	20.00	15.00	27.10
Antimony (R.M.M. brand, f. o. b. Laredo)	12.36	14.50	38.00

METALS, SEPTEMBER, 1956

## U. S. Copper Exports

(A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	Jan.-July	June	July
Ore, conc., matte and other unref. (cont.)	2,397	627	664
Refined ingots, bars, etc.	103,131	15,147	9,251
Canada	1,854	156	50
Brazil	3,887	1,082	690
Austria	168	112	...
Belgium	34	10	...
Denmark	5	...	5
France	38,235	5,951	1,928
Germany (W.)	17,706	2,464	1,801
Italy	9,605	256	1,779
Netherlands	3,359	...	...
Norway	1,400	...	...
Sweden	593	84	173
Switzerland	7,681	1,035	...
U. Kingdom	3,245	378	597
Formosa	195	195	...
India	6,376	1,258	616
Japan	8,172	1,973	1,565
Other countries	616	193	47

### Total Exports:

Crude and refined	105,528	15,774	9,915
Pipes & tubes	1,637	152	20
Wire, bare	7,089	1,026	728
Building wire and cable	2,319	303	270
Weatherproof wire	506	121	71
Insulated copper wire n.e.s.	9,024	1,218	1,224

† Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

‡ Gross weight; n.e.s. — not elsewhere specified.

\* Includes plates, sheets, rods, brush copper, castings, rolls, segments (finished forms) n.e.s.

## U. S. Copper Scrap Exports

(A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	Jan.-July	June	July
Copper scrap, unalloyed (new and old)	12,662	420	1,436
Canada	3,271	63	6
Belgium	176	...	27
Germany (W.)	4,349	206	572
Netherlands	159	5	64
Switzerland	177	...	...
India	38	16	22
Japan	4,423	130	745
Other countries	69	...	...
Copper-base scrap, alloyed (new and old)	28,024	2,135	5,309
Canada	368	2	25
Austria	291	...	...
Germany (W.)	11,970	882	2,343
Italy	2,222	88	739
Netherlands	446	73	73
Spain	27	...	27
Switzerland	197	16	112
U. Kingdom	367	...	11
India	1,068	121	461
Japan	10,920	953	1,509
Other countries	148	...	9

† Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap.

‡ Copper-base alloys, including brass and bronze—Ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

## U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	Jan.-July	June	July
Ore, matte, etc. (cont.)	116,342	15,217	15,868
Canada	20,822	2,274	2,996
Mexico	2,161	188	488
Guatemala	4,551	629	784
Honduras	1,705	85	374
Bolivia	10,577	2,966	2,060
Chile	21	...	...
Colombia	370	...	...
Peru	36,109	3,000	4,102
U. of S. Africa	21,460	2,550	1,238
Australia	16,827	3,260	3,613
Philippines	1,291	144	163
Korea	302	51	50
Other countries	146	70	...
Pigs and bars	133,604	14,765	13,092
Canada	8,961	674	932
Mexico	37,615	4,114	3,534
Peru	18,780	2,660	2,850
Belgium	1,096	...	176
Denmark	883	1	114
Germany	168	...	...
Spain	3,939	...	1,102
U. Kingdom	115	...	...
Yugoslavia	22,817	4,756	55
Fr. Morocco	5,626	...	...
Australia	33,383	2,560	4,329
Other countries	221	...	...

### Total Imports:

Ore, base bullion, ref.	249,946	29,982	28,960
Lead scrap, dross, etc. (cont.)	17,951	5,862	684
Antimonial lead & typemetal	6,112	1,310	391
Lead content thereof	5,469	1,187	288

## U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	Jan.-July	June	July
Zinc ore (content)	304,963	38,093	41,955
Canada	101,236	13,878	14,055
Mexico	108,609	15,240	15,708
Cuba	648	...	60
Guatemala	7,615	802	1,675
Honduras	1,410	216	126
Bolivia	5,427	184	1,322
Colombia	39	...	...
Chile	69	...	...
Peru	60,012	7,001	5,786
U. of S. Africa	2,638	...	182
Australia	15,658	552	3,013
Philippines	383	212	24
Other countries	1,219	8	4
Zinc blocks, pigs, etc.	99,591	10,691	12,631
Canada	52,831	5,165	6,407
Mexico	8,508	1,004	1,620
Peru	3,883	642	600
Austria	1,849	165	...
Belgium	12,780	1,197	1,572
Germany (W.)	1,824	258	335
Italy	3,199	496	358
Netherlands	660	210	112
U. Kingdom	500	...	...
Belg. Congo	8,924	1,554	507
Australia	3,360	...	1,120
Japan	1,273	...	...

### Total Imports:

Zinc ore, blocks, pigs	404,554	48,784	54,586
Dross and skimmings	241	38	...
Old & worn out	69	...	9



# World Production of Copper (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States	Canada	Mexico (crude)	Chile	Peru	Fed. Rep. of Germany	Norway	United Kingdom	Yugo-slavia	India	Japan	Turkey	Australia	Rhodesia	Union of South Africa
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g-h)	(c)	(f-h)	(e)	(f)	(c)	(c)	(d)
1951	964,589	269,971	60,511	396,937	25,495	234,647	.....	.....	.....	.....	100,254	.....	16,984	349,667	36,104
Total 1952	961,886	258,868	60,874	422,493	22,640	206,747	11,206	163,968	36,176	7,009	104,060	2,546	21,119	336,883	37,459
Total 1953	957,318	253,652	63,380	371,742	25,803	233,330	13,306	108,604	34,381	5,709	100,381	25,641	37,080	382,884	38,341
Total 1954	863,721	302,984	59,030	372,814	29,233	258,259	14,205	152,858	33,394	8,274	117,371	27,727	42,241	386,577	43,153
1955	93,669	25,202	4,946	38,510	2,434	24,951	1,297	8,355	2,252	740	10,906	1,335	4,114	33,467	4,468
Apr.	95,042	25,718	4,677	38,735	2,616	24,642	1,236	11,772	2,487	743	8,096	1,953	4,501	35,801	4,629
May	90,645	27,465	5,402	38,164	2,635	23,639	1,433	14,837	3,045	718	5,655	2,252	4,308	35,166	2,700
June	91,846	26,481	5,425	36,081	2,738	23,841	1,223	9,418	3,200	717	10,810	2,305	4,300	34,306	4,548
July	67,990	27,844	4,829	36,949	2,613	24,944	1,231	10,946	2,975	763	11,623	1,623	4,760	28,942	4,787
Aug.	96,343	27,502	4,745	30,914	2,544	24,096	1,479	11,396	2,793	682	11,657	.....	.....	33,087	4,411
Sept.	99,514	27,783	5,216	37,427	2,055	23,317	1,439	10,806	2,151	694	11,543	2,552	3,770	36,149	4,368
Oct.	94,287	27,392	5,999	40,699	2,554	24,143	1,308	12,728	2,544	782	11,868	3,010	4,826	28,749	3,844
Nov.	93,186	32,550	5,501	19,232	2,610	22,973	1,010	13,871	2,794	814	11,872	2,301	1,804	31,676	4,065
Dec.	96,732	30,063	6,040	30,475	593	23,826	1,329	14,597	2,436	456	11,133	1,895	3,985	32,887	3,808
1956	89,326	26,867	4,965	37,420	2,492	21,106	1,259	11,437	1,872	792	11,029	2,477	4,331	33,545	2,924
Jan.	102,459	31,659	7,107	38,356	2,500	23,938	1,322	12,281	3,313	821	10,390	3,074	5,991	32,535	3,773
Feb.	98,578	27,804	6,436	39,731	2,474	22,593	1,402	8,154	1,660	761	9,927	2,355	5,443	30,789	3,105
Mar.	101,422	29,422	5,801	39,954	2,612	23,134	.....	10,217	3,193	765	11,923	.....	4,477	33,577	4,835
Apr.	98,496	28,753	5,614	36,812	2,412	22,889	.....	9,715	.....	.....	12,490	.....	4,461	33,640	.....
May	84,970	.....	5,109	.....	2,602	.....	.....	.....	.....	.....	.....	.....	.....	33,279	.....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. "Refined."

# World Production of Refined Lead (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	Fed. Rep. of Germany	Italy	Spain	Yugo-slavia	Japan	Australia	French Morocco	Tunisia	Rhodesia	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1951	486,974	162,712	219,352	48,824	77,873	53,831	170,766	39,683	45,460	.....	18,516	217,301	20,287	25,476	1,602,601
Total 1952	532,778	183,389	248,551	53,536	83,139	59,607	152,751	38,504	46,060	74,053	20,382	217,293	31,224	28,264	1,783,643
Total 1953	533,883	166,356	225,075	66,520	84,162	60,887	164,077	40,786	53,799	78,038	25,513	241,419	29,970	30,397	1,813,773
Total 1954	551,618	166,379	231,595	63,735	79,260	71,083	162,773	41,150	62,475	73,555	37,612	260,424	29,417	30,015	1,877,841
1955	50,274	13,615	16,730	5,294	6,737	5,855	13,713	2,583	5,078	6,787	3,411	22,368	.....	2,134	1,792
Apr.	45,435	13,886	12,840	5,384	6,642	7,601	13,676	3,200	6,254	6,334	2,314	26,531	2,025	1,192	1,792
May	48,133	14,061	18,189	5,442	6,249	7,068	11,363	3,169	5,929	7,288	2,087	21,427	4,957	1,903	1,680
June	23,850	7,237	17,255	5,698	7,120	3,108	10,077	4,117	4,844	7,758	3,724	15,930	3,746	2,231	1,680
July	36,912	11,492	19,301	5,529	7,638	4,826	10,845	2,579	4,357	7,047	3,860	23,682	2,976	2,541	1,680
Aug.	50,463	14,323	18,382	5,323	9,032	6,558	13,910	3,805	6,421	5,687	3,851	25,833	3,236	2,706	1,680
Sept.	53,747	15,326	17,225	5,760	8,777	7,044	15,387	4,828	5,709	6,260	3,579	21,946	.....	1,944	1,680
Oct.	52,623	12,587	17,576	5,473	8,468	5,891	17,503	3,741	6,133	7,799	3,785	18,820	.....	2,535	1,456
Nov.	50,448	12,553	18,676	7,038	8,030	6,730	16,806	4,031	5,267	7,208	3,946	21,113	1,414	3,790	1,456
Dec.	51,306	12,179	17,587	1,730	8,731	7,014	16,218	3,722	5,399	6,210	3,929	24,196	4,967	2,070	1,456
1956	49,475	11,469	16,510	6,497	9,446	6,241	15,743	3,688	5,202	4,708	4,339	16,392	5,572	1,307	1,232
Jan.	54,174	12,438	17,376	6,142	9,338	6,383	14,562	3,164	5,319	7,187	4,009	19,535	3,505	2,273	1,680
Feb.	52,976	11,554	15,186	6,790	8,650	6,276	14,398	3,799	6,118	7,159	4,136	17,407	2,056	2,372	1,456
Mar.	47,961	.....	17,611	6,970	9,188	6,714	14,022	4,511	5,660	5,786	4,142	15,984	798	2,064	1,456
Apr.	47,367	.....	18,091	6,779	.....	6,804	14,302	3,100	4,767	.....	3,972	.....	.....	.....	1,456
May	48,479	.....	18,515	6,415	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,456

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

# World Production of Slab Zinc (American Bureau of Metal Statistics) (In Tons of 2,000 Pounds)

	United States	Can.	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Great Britain	Italy	Netherlands	Norway	Spain	Yugo-slavia	Japan	Australia	Rhodesia	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1951	931,833	218,548	57,990	1,003	220,479	82,184	155,024	78,101	52,058	24,924	44,971	23,444	.....	62,109	88,103	25,301	2,065,216
Total 1952	961,430	223,140	61,466	5,491	205,909	88,255	162,272	76,981	60,438	28,555	43,061	23,829	15,943	77,203	97,931	25,637	2,141,088
Total 1953	971,191	247,707	59,589	9,819	213,215	89,218	163,430	81,436	65,730	27,721	42,566	24,152	16,037	86,833	101,003	28,370	2,228,017
Total 1954	868,242	218,810	60,477	16,932	234,896	122,248	184,806	90,987	74,356	28,686	48,768	25,109	15,040	112,292	117,066	29,736	2,243,501
1955	83,786	21,301	5,136	1,770	19,279	10,582	16,409	7,392	6,393	2,519	4,168	2,193	1,421	10,750	7,737	2,632	203,478
Apr.	86,177	21,600	5,271	1,870	20,820	11,219	16,985	6,870	6,639	2,609	4,460	2,337	1,369	7,639	8,508	2,638	206,521
May	84,458	20,565	5,173	2,124	19,387	10,715	16,476	6,450	6,480	2,628	3,854	2,227	1,285	7,141	8,837	2,604	202,444
June	84,400	21,769	5,297	1,725	19,561	10,463	16,918	5,902	6,802	2,737	4,238	2,251	1,358	11,223	10,413	2,660	207,697
July	84,877	22,029	5,168	1,890	19,190	10,185	16,566	6,751	7,088	2,529	4,422	2,197	1,175	11,012	10,089	2,576	207,731
Aug.	83,448	20,898	4,987	1,754	18,863	7,603	16,496	6,809	6,323	2,621	4,451	2,121	1,198	11,227	9,817	2,464	202,860
Sept.	89,449	22,206	5,212	1,545	19,345	10,262	16,735	6,940	6,906	2,735	4,704	2,243	1,176	11,644	9,972	2,604	213,678
Oct.	87,616	21,398	5,066	818	19,244	9,848	15,708	7,442	6,183	2,846	4,501	2,185	1,142	11,600	9,860	2,576	210,265
Nov.	92,578	21,135	5,252	.....	20,079	10,332	17,061	9,316	6,420	2,886	4,492	2,258	1,147	11,654	9,972	2,632	220,043
1956	90,313	21,696	5,279	.....	20,359	11,756	16,827	6,768	6,315	2,786	4,345	2,219	1,146	15,928	9,753	2,632	222,280
Jan.	86,329	20,356	4,949	963	20,589	9,911	15,598	7,684	5,799	2,777	3,961	2,038	1,144	10,337	8,982	2,688	208,693
Feb.	91,690	22,010	5,333	1,980	20,710	9,491	16,839	9,351	6,355	2,853	4,331	2,166	1,236	11,702	9,572	2,688	224,327
Mar.	88,664	21,339	5,207	1,229	20,687	10,819	16,689	7,382	6,613	2,698	4,002	2,172	1,222	13,805	9,243	2,688	218,362
Apr.	81,238	21,790	5,248	1,225	21,300	11,174	17,212	7,719	7,190	2,662	4,168	2,226	1,259	13,365	10,012	2,688	.....
May	78,454	20,780	5,142	1,439	.....	11,003	16,898	8,857	6,270	2,530	4,427	2,175	.....	12,466	.....	2,632	.....
June	83,080	21,691	5,198	1,285	.....	.....	.....	6,617	.....	.....	4,638	.....	.....	.....	.....	2,800	.....
July	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrothermic. (d) The above totals omit production in Russia, Czechoslovakia, Poland and in Argentina.



## U. K. Virgin Copper Stocks

(In long tons)  
British Bureau of Non-Ferrous Metal Statistics

At start of:	1954	1955	1956
Jan. ....	55,344	61,480	76,197
Feb. ....	60,402	62,771	79,377
Mar. ....	60,084	70,185	71,634
Apr. ....	47,258	67,566	73,776
May ....	60,118	60,767	76,481
June ....	65,314	58,546	71,713
July ....	68,037	64,256	76,188
Aug. ....	67,307	99,628	68,197
Sept. ....	77,323	107,261	.....
Oct. ....	72,266	93,681	.....
Nov. ....	61,484	75,533	.....
Dec. ....	61,673	77,749	.....

## U. K. Refined Lead Stocks

British Bureau of Non-Ferrous Metal Statistics

At start of:	1954	1955	1956
Jan. ....	26,887	31,173	40,987
Feb. ....	32,653	32,274	34,326
Mar. ....	30,697	39,461	29,693
Apr. ....	28,312	37,587	33,974
May ....	30,005	45,226	29,479
June ....	29,793	38,760	30,537
July ....	30,437	30,816	37,088
Aug. ....	29,492	32,270	35,432
Sept. ....	26,298	48,036	.....
Oct. ....	28,958	42,912	.....
Nov. ....	22,269	42,061	.....
Dec. ....	26,937	38,410	.....

## U. K. Stocks of Zinc

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 lbs.)		
	Virgin Zinc	Zinc Conc.	
At start of:	1955	1956	1955
Jan. ....	49,962	49,962	47,200
Feb. ....	48,027	45,239	43,779
Mar. ....	45,679	44,288	44,176
Apr. ....	49,301	49,194	51,603
May ....	53,573	49,129	47,741
June ....	50,447	47,226	47,791
July ....	48,227	47,664	47,399
Aug. ....	54,562	49,169	50,649
Sept. ....	60,955	.....	55,350
Oct. ....	60,800	.....	55,234
Nov. ....	54,679	.....	60,065
Dec. ....	50,678	.....	58,414

## U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 lbs.)		
	Jan.-July	1956	July
(Gross Weight)			
Copper and			
copper alloys	231,773	39,957	33,268
U. of S. Africa	644	197	51
N. Rhodesia	138,546	24,438	18,972
Canada	33,273	4,508	4,584
Belgium	2,996	400	251
Germany (W.)	775	62	327
Norway	389	50	.....
United States	3,539	549	642
Chile	40,662	8,134	7,498
Peru	1,917	360	151
Belg. Congo	5,375	925	250
Other countries	3,657	334	542
Of which:			
Electrolytic	145,294	25,835	19,860
Other refined	22,079	4,750	4,701
Blister or			
rough	62,363	9,024	8,666
Wrought and			
alloys	2,037	348	41
Total	231,773	39,957	33,268

METALS, SEPTEMBER, 1956

## Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics  
(In tons of 2,240 pounds)

	Unalloyed	Alloyed*	Total	Virgin	Scrap
1953 Total	243,717	192,337	447,260	322,311	124,949
1954 Total	328,149	251,989	580,138	448,413	131,725
1955					
February	27,607	23,098	50,705	36,906	13,799
March	31,901	25,894	57,795	41,083	16,712
April	26,101	22,045	48,146	36,008	12,138
May	31,107	23,297	54,404	39,485	14,919
June	36,163	23,904	60,067	45,367	14,700
July	26,601	19,698	46,299	31,749	14,550
August	24,731	18,390	43,121	33,255	9,866
September	36,286	24,007	60,293	47,180	13,113
October	36,309	25,276	61,585	47,519	14,066
November	35,791	25,854	61,645	48,690	12,955
December	32,953	23,108	56,061	41,130	14,931
Total	377,576	281,953	659,529	496,467	163,062
1956					
January	34,567	24,461	59,028	45,676	13,352
February	33,213	24,163	57,376	40,934	16,442
March	32,903	24,366	57,269	43,913	13,356
April	27,489	21,029	48,518	36,418	12,100
May	29,345	22,295	52,140	41,747	10,393
June	33,774	21,810	55,584	43,622	11,962
July	31,752	19,316	51,068	39,149	11,919

\*Includes copper sulphate effective October, 1954.

## U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 lbs.)		
	Jan.-July	1956	July
(Gross Weight)			
Zinc ore and concentrates	95,264	11,410	26,502
Zinc conc.	9,126	.....	.....
Australia	6,789	.....	.....
Italy	771	.....	.....
Yugoslavia	1,566	.....	.....
Zinc and zinc alloys	77,167	10,638	12,281
N. Rhodesia	3,121	390	440
Australia	4,826	500	500
Canada	30,489	3,753	6,356
Belgium	11,035	2,655	1,451
Germany (W.)	2,985	851	4
Netherlands	1,612	150	625
Norway	550	.....	100
United States	3,920	300	500
Other countries	16,629	2,039	2,305
Of which:			
Zinc or spelter, unwrought in ingots, blocks, bars, slabs & cakes	76,678	10,610	12,151
Other	489	28	130
Total	77,167	10,638	12,281

† Not yet available.

## Zinc Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	Apr.	1956	June
	May		
IMPORTS			
U. S. (s.t.)	14,081	14,123	10,691
Canada (s.t.)	10	.....	.....
Denmark	294	424	332
France	1,318	1,099	1,358
Germany, W.	5,983	5,812	.....
Italy	1,128††	.....	.....
Netherlands	574	420	.....
Sweden	3,105	2,717	.....
Switzerland†	1,901	1,007	1,420
U. K. (l.t.)	11,234	11,960	10,638
India† (l.t.)	2,392	2,929	.....
EXPORTS			
U. S. (s.t.)	1,083	413	647
Canada (s.t.)	14,317	11,357	15,296
Denmark	20	20	.....
France	10	1	2
Germany, W.	3,114	3,199	.....
Italy	3,950††	.....	.....
Netherlands	1,738	1,407	.....
Norway	2,841	2,423	.....
Switzerland†	363	202	695
U. K.* (l.t.)	417	337	251
Northern Rhodesia† (l.t.)	2,137	1,910	2,795
Belg. Congo	2,584	.....	.....

† Includes scrap.

\* Includes manufactures.

† British Bureau of Non-Ferrous Metal Statistics.

†† April-May.

## United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore		Tin Metal				
	Imports	Production*	Stock at end of period*	Imports	Production*	Consumption	Exports & Re-exports
1954 Total	27,494	940	2,473	2,404	27,475	21,389	8,585
1955							
June	898	96	1,119	21	2,595	1,997	363
July	4,006	95	2,700	3	2,201	1,615	1,581
August	2,163	78	2,300	10	2,545	1,576	733
September	1,739	97	1,800	15	2,383	1,920	981
October	2,245	90	2,349	35	2,197	1,866	1,087
November	3,034	86	2,878	436	2,421	2,081	577
December	1,679	71	2,181	155	2,233	1,689	528
1955 Total	27,084	1,084	2,181	1,227	27,241	22,390	8,924
1956							
January	1,548	110	1,194	14	2,493	1,881	704
February	2,695	88	2,384	129	1,769	2,082	793
March	2,526	94	2,705	730	2,452	1,825	237
April	2,045	76	2,341	155	1,924	1,692	475
May	1,650	81	1,861	39	2,455	2,301	1,013
June	1,647	74	1,240	69	2,060	1,797	457

\*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

## Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper) (In Tons)				
	1953	1954	1955	1956
Jan.	21,830	15,001	22,678	26,739
Feb.	21,075	13,954	21,533	26,321
Mar.	22,432	21,075	25,181	26,830
Apr.	21,747	20,412	24,221	26,732
May	20,179	23,012	23,921	27,743
June	18,384	23,344	21,981	27,215
July	19,996	21,582	21,286	.....
Aug.	19,886	22,000	26,424	.....
Sept.	16,777	22,684	24,943	.....
Oct.	17,675	21,661	25,658	.....
Nov.	17,101	22,981	25,340	.....
Dec.	18,703	24,935	27,312	.....
Year	235,787	252,643	290,478	.....

## Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs) (In Tons)				
	1953	1954	1955	1956
Jan.	11,212	6,170	5,500	4,888
Feb.	8,710	7,560	11,882	3,856
Mar.	14,943	11,092	10,318	4,007
Apr.	14,765	9,606	11,967	7,636
May	7,039	11,483	6,416	7,214
June	13,434	12,018	9,897	6,632
July	1,357	13,152	8,341	.....
Aug.	8,869	8,646	4,884	.....
Sept.	3,903	10,045	5,538	.....
Oct.	7,532	8,005	8,053	.....
Nov.	6,581	10,817	4,622	.....
Dec.	4,354	7,815	5,286	.....
Year	102,879	116,409	92,704	.....

## Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates) (Fine Ounces)			
	1954	1955	1956
Jan.	547,951	429,704	435,047
Feb.	567,225	457,261	196,803
Mar.	849,502	411,597	328,857
Apr.	572,059	493,578	348,838
May	660,724	445,054	447,710
June	682,906	592,238	495,742
July	1,210,045	285,350	.....
Aug.	953,379	644,932	.....
Sept.	605,188	636,992	.....
Oct.	612,874	684,301	.....
Nov.	606,274	387,147	.....
Dec.	804,213	405,719	.....
Year	8,672,340	5,873,873	.....

## Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets) (In Tons)				
	1953	1954	1955	1956
Jan.	7,668	9,081	11,078	15,981
Feb.	16,411	8,385	12,897	11,041
Mar.	10,578	11,671	12,423	12,276
Apr.	11,153	11,218	10,321	14,476
May	14,726	18,407	10,911	12,851
June	15,053	14,877	13,387	10,985
July	13,939	15,467	12,674	.....
Aug.	7,272	14,158	13,219	.....
Sept.	8,139	14,069	13,479	.....
Oct.	8,957	11,528	14,208	.....
Nov.	9,062	13,372	14,545	.....
Dec.	9,036	13,897	14,057	.....
Year	131,994	156,130	153,199	.....

## Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc) (In Tons)				
	1953	1954	1955	1956
Jan.	18,370	17,155	22,028	21,696
Feb.	18,677	15,199	19,865	20,356
Mar.	20,693	16,550	22,215	22,010
Apr.	20,003	16,249	21,301	21,339
May	20,090	16,530	21,599	21,790
June	20,589	17,017	20,565	20,780
July	21,595	17,917	21,769	.....
Aug.	21,703	18,755	22,029	.....
Sept.	21,157	18,023	20,898	.....
Oct.	21,888	18,871	22,206	.....
Nov.	21,051	19,662	21,398	.....
Dec.	21,899	21,922	21,135	.....
Year	247,707	213,810	257,008	.....

## Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)			
	1954	1955	1956
Jan.	2,603,593	2,182,386	2,280,575
Feb.	2,068,740	1,960,506	2,094,467
Mar.	2,352,392	2,413,591	2,296,504
Apr.	2,745,615	2,304,287	1,823,211
May	2,564,919	2,235,620	2,540,291
June	2,769,694	2,461,675	2,553,763
July	2,717,859	2,385,654	.....
Aug.	2,840,385	2,480,607	.....
Sept.	2,804,384	2,386,385	.....
Oct.	2,461,823	2,371,890	.....
Nov.	2,823,719	2,088,991	.....
Dec.	2,364,826	2,388,627	.....
Year	31,117,949	27,696,319	.....

## Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)* (In Tons)				
	1953	1954	1955	1956
Jan.	19,502	17,716	18,959	16,002
Feb.	16,888	16,863	15,018	14,344
Mar.	14,183	17,104	19,113	16,857
Apr.	18,640	19,452	17,889	11,573
May	16,120	19,953	16,808	15,446
June	15,302	18,988	17,800	18,145
July	11,969	19,164	16,650	.....
Aug.	13,864	18,237	16,676	.....
Sept.	14,335	17,066	15,972	.....
Oct.	16,327	16,569	13,658	.....
Nov.	19,433	18,365	15,182	.....
Dec.	19,273	19,093	17,857	.....
Year	195,836	219,280	201,583	.....

\*New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

## Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)				
	1953	1954	1955	1956
Jan.	17,478	16,625	22,181	15,550
Feb.	13,580	11,328	25,556	11,757
Mar.	18,307	18,199	20,178	8,822
Apr.	17,068	17,926	21,018	14,317
May	15,595	13,926	14,820	11,357
June	14,919	15,654	19,581	.....
July	10,068	27,582	13,522	.....
Aug.	8,594	14,934	16,581	.....
Sept.	9,423	17,298	11,793	.....
Oct.	11,862	13,064	19,836	.....
Nov.	10,685	16,224	14,164	.....
Dec.	10,809	23,277	14,607	.....
Year	158,388	206,037	213,837	.....

## Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)				
	1953	1954	1955	1956
Jan.	12,517	12,765	14,387	14,985
Feb.	10,662	11,874	13,375	14,997
Mar.	12,268	13,619	15,544	15,504
Apr.	11,841	13,015	15,011	14,431
May	11,610	13,458	15,352	15,203
June	11,687	13,269	14,835	14,492
July	11,801	12,901	14,530	.....
Aug.	11,911	13,428	14,825	.....
Sept.	12,031	13,521	13,734	.....
Oct.	12,469	14,323	14,411	.....
Nov.	12,764	14,159	14,290	.....
Dec.	12,122	14,947	14,881	.....
Year	143,693	161,79	175,173	.....

METALS, SEPTEMBER, 1956

## Canadian Copper Exports

(Dominion Bureau of Statistics;  
in tons of 2,000 lbs.)

	1956		
	Jan.-June	May	June
Ore, matte, regulus, etc. (content) .....	17,551	2,897	3,528
U. S. ....	10,455	1,990	2,138
Norway .....	6,531	860	1,283
U. Kingdom....	565	47	107
Ingot, bars, billets, anodes. 77,609	12,851	10,985	
U. S. ....	43,261	7,465	6,826
Brazil .....	1		
France .....	5,055	939	707
U. Kingdom....	28,390	4,220	3,227
India .....	896	224	224
Other countries.	6	3	1
<b>Total Exports:</b>			
Crude & refined. 95,160	15,748	14,513	
Old and scrap... 7,421	2,077	703	
Rods, strips, sheet & tubing. 7,056	659	836	

## Canadian Zinc Exports

(Dominion Bureau of Statistics;  
in tons of 2,000 lbs.)

	1956		
	Jan.-June	May	June
Ore (zinc content) .....	85,607	13,566	13,405
U. S. ....	84,828	13,566	12,626
Belgium .....	779		779
Slab zinc .....	77,099	11,357	15,296
U. S. ....	47,207	7,385	5,618
Brazil .....	13		13
U. Kingdom....	28,201	3,277	8,721
Korea .....	63	63	
Hong Kong ..	56	56	
Taiwan .....	53	16	
India .....	1,120	560	560
Other countries	386		†384
<b>Total Exports:</b>			
Ore and slabs.. 162,706	24,923	28,701	
Zinc scrap, dross, ashes .. 2,031	837	393	
U. S. ....	338	4	28
Belgium .....	799	540	177
Germany (W.)	97		
Netherlands ..	630	293	85
Italy .....	53		53
India .....	114		50

† To Argentina.

## Canada's Nickel Exports

(Dominion Bureau of Statistics)

(Refined, in oxides, matte, etc.)  
(In Tons)

	1955	1956
January .....	14,421	15,121
February .....	13,915	13,940
March .....	13,564	16,219
April .....	16,083	14,448
May .....	14,761	14,729
June .....	16,296	16,403
July .....	13,929	
August .....	14,861	
September .....	14,638	
October .....	13,589	
November .....	13,073	
December .....	14,749	
<b>Year .....</b>	<b>173,879</b>	

METALS, SEPTEMBER, 1956

## Copper Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.; metric tons  
except where otherwise noted.

	1956		
	Apr.	May	June
<b>IMPORTS</b>			
U. S. (blis., s.t.)	17,550	23,191	29,106
(ore, etc., s.t.)	12,706	12,011	8,515
(ref., s.t.)	16,687	15,994	14,683
Denmark .....	332	163	53
France (crude) ..		813	
(refined) .....	13,822	16,151	14,101
Italy .....	17,307††		
Germany, W. ....	18,045	17,508	
Netherlands .....	2,860	2,367	
Norway .....	605	290	
Sweden .....	5,690	4,195	
Switzerland .....	4,030	4,330	2,326
U. K. (l.t.) .....	31,821	30,518	39,957
India† (ref., l.t.)	1,589	1,982	
<b>EXPORTS</b>			
U. S. (ore and unref., s.t.) ..	492	196	627
(ref., s.t.) .....	12,115	23,922	15,147
Canada			
(ref., s.t.) .....	14,475	12,851	10,985
Finland* .....	61	55	221
Germany, W. ....	5,175	3,301	
Norway .....	1,305	988	
Sweden .....	1,920	742	
U. K. (l.t.) .....	1,702	3,222	2,549
Turkey† .....	1,000		
N. Rhodesia (ref. & blis., l.t.)†.	29,829	34,199	29,758

\* Includes old.

† British Bureau of Non-Ferrous Metal Statistics.

†† April-May.

† Includes copper alloys.

## U. K. Copper Exports

(British Bureau of Non-Ferrous Metal  
Statistics)

(In tons of 2,240 lbs.)

	1956		
	Jan.-July	June	July
(Gross Weight)			
Copper			
unwrought, ingots, blocks, slabs, bars, etc..	16,636	2,549	3,978
Plates, sheets, rods, etc. ....	10,544	1,184	2,248
Wire (including uninsulated electric wire) ..	27,447	1,280	6,740
Tubes .....	5,876	658	748
Other copper worked (incl. pipe fittings) ..	702	114	79
<b>Total .....</b>	<b>61,205</b>	<b>5,785</b>	<b>13,793</b>

## Canadian Lead Exports

(Dominion Bureau of Statistics;  
in tons of 2,000 lbs.)

	1956		
	Jan.-June	May	June
Ore (lead content) .....	14,946	2,603	2,823
U. S. ....	14,381	2,603	2,258
Belgium .....	565		565
Refined lead .....	34,233	7,214	6,632
U. S. ....	8,141	1,140	764
Cuba .....	1	1	
Venezuela .....	44		
U. Kingdom....	22,909	5,096	5,124
Japan .....	3,080	977	743
Other countries.	58		1
<b>Total Exports:</b>			
Ore and refined. 49,179	9,817	9,455	
Pipe and tubing..	6	4	
Lead scrap.....	55		9

## French Copper Imports

(American Bureau of Metal Statistics)  
(In Metric Tons)

	1956		
	Jan.-June	May	June
Crude copper for refining (blister, black & cement) ...	2,540	813	...
Belgium .....	102		...
Belg. Congo .....	2,438	813	...
Refined .....	83,560	16,151	14,101
United States...	32,214	5,776	5,563
Canada .....	4,641	885	776
Chile .....	640	410	230
Peru .....	3		...
Belgium .....	19,747	5,361	3,029
Germany (W.) ..	2,625	729	1,085
Norway .....	817		...
Sweden .....	152		...
U. Kingdom ...	1,060	76	253
Belg. Congo ...	14,256	2,045	2,198
U. of S. Africa..	521		...
Rhodesia- Nyassaland ...	6,839	869	966
Other countries	45		1
<b>Total Imports:</b>			
Crude and re- fined .....	86,100	16,964	14,101

## French Zinc Imports

(American Bureau of Metal Statistics)  
(In Metric Tons)

	1956		
	Jan.-June	May	June
Ore (gross weight) ...	151,684	24,785	27,488
Canada .....	5,083		...
Peru .....	7,003	1,128	...
Belgium .....	818	818	...
Germany (W.) ..	2,030	250	500
Greece .....	2,270	305	...
Italy .....	7,630	808	457
Netherlands .....	304		...
Norway .....	669		440
Spain .....	25,481	4,034	5,486
Yugoslavia .....	8,515	3,800	1,115
Algeria .....	28,735	3,108	8,625
Fr. Morocco ...	42,108	6,931	8,157
Tunisia .....	7,301		1,185
Belg. Congo ...	5,373	2,200	...
Australia .....	7,581	1,120	1,523
Burma .....	500		...
Other countries	283	283	...
Slabs, bars, blocks, etc. ...	6,751	1,099	1,358
Mexico .....	130		30
Belgium .....	6,138	1,034	1,264
Germany (W.) ..	248		...
Italy .....	180	50	50
U. Kingdom ...	2		...
Algeria .....	53	15	14

## French Metal Exports

(American Bureau of Metal Statistics)  
(In Metric Tons)

	1956		
	Jan.-June	May	June
<b>Lead</b>			
Ore (gross weight) .....	125	20	30
Pig lead:			
Non-argenti- ferous .....	6,233	654	351
Antimonial lead.	299	1	25
<b>Zinc</b>			
Slabs, bars, blocks, etc. ...	24	1	2
<b>Copper</b>			
Crude Copper for refining (blister, black and ce- ment) .....	307	51	156

## Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL  
(Bureau of Census — Thousands of Pounds)

	Alu- minum	Copper	Mag- nesium	Zinc	Lead Die
1951 Total	515,131	1,197,443	30,825	487,996	25,936
1952 Total	518,979	1,009,910	34,857	408,353	20,941
1953 Total	658,022	990,496	34,517	521,253	20,444
1954 Total	607,764	834,557	25,572	474,741	18,396
1955					
January	64,414	72,233	2,305	58,586	1,734
February	66,869	75,253	2,160	58,585	1,571
March	78,958	92,149	2,572	71,811	1,537
April	73,049	84,183	2,633	71,595	1,614
May	71,691	85,008	2,399	63,735	1,530
June	68,473	90,476	2,367	66,569	2,045
July	55,033	65,816	1,920	47,928	1,684
August	64,864	87,206	2,176	62,677	1,904
September	67,170	39,600	2,478	62,030	1,924
October	72,197	91,192	2,302	71,689	1,789
November	75,065	90,345	2,325	75,099	1,896
December	75,275	88,287	2,255	70,950	1,817
Total	833,058	1,011,748	27,892	781,254	21,045
1956					
January	74,152	89,767	2,959	68,050	1,598
February	73,096	91,706	2,977	66,584	1,636
March	73,785	96,085	3,046	65,760	1,644
April	67,880	90,679	3,140	58,274	1,910
May	65,786	89,188	3,021	52,205	1,919
June	58,717	79,132	2,949	47,779	1,833

## Copper Castings Shipments

BY TYPE OF CASTING  
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent	Die	All
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954					
December	72,421	65,159	4,346	482	2,434
Total	834,557	751,804	48,849	6,480	27,394
1955					
January	72,233	64,540	4,678	591	2,424
February	75,253	67,768	4,598	641	2,246
March	92,149	83,149	5,649	742	2,609
April	84,183	75,903	5,152	654	2,474
May	85,008	76,064	5,513	764	2,667
June	90,476	80,869	5,840	739	3,028
July	65,816	59,138	3,998	691	1,989
August	87,206	77,721	5,322	844	2,413
September	39,600	30,481	5,608	692	2,824
October	91,192	82,958	4,513	727	2,994
November	90,345	80,934	5,807	743	2,861
December	88,287	78,327	6,368	713	2,879
Total	1,011,748	907,852	63,041	8,541	31,408
1956					
January	89,767	80,116	6,135	799	2,717
February	91,706	82,244	5,888	727	2,847
March	96,085	85,894	6,299	782	3,110
April	90,679	81,333	5,835	722	2,789
May	89,188	80,155	5,398	751	2,854
June	79,132	70,471	5,052	755	2,854

## Nickel Averages

Electro, cathode sheets, 99.00%,  
f.o.b. refinery, duty included

	1953	1954	1955	1956
Jan.	58.62	60.00	64.50	64.50
Feb.	60.00	60.00	64.50	64.50
Mar.	60.00	60.00	64.50	64.50
Apr.	60.00	60.00	64.50	64.50
May	60.00	60.00	64.50	64.50
June	60.00	60.00	64.50	64.50
July	60.00	60.00	64.50	64.50
Aug.	60.00	60.00	64.50	64.50
Sept.	60.00	60.00	64.50	....
Oct.	60.00	60.00	64.50	....
Nov.	60.00	60.98	64.50	....
Dec.	60.00	64.50	64.50	....
Av.	59.885	60.46	64.50	....

## Platinum Averages

N. Y. MONTHLY QUOTATIONS

	1953	1954	1955	1956
Jan.	91.50	91.40	81.00	106.30
Feb.	91.50	91.00	78.16	104.34
Mar.	91.50	87.88	78.00	104.23
Apr.	91.50	85.50	77.94	103.92
May	91.50	85.50	77.50	105.23
June	92.81	85.50	78.33	106.50
July	94.00	85.50	81.78	106.50
Aug.	94.00	85.00	84.59	105.76
Sept.	92.50	85.50	91.96	....
Oct.	92.50	83.62	94.60	....
Nov.	92.50	81.07	103.11	....
Dec.	92.15	80.64	106.58	....
Av.	92.496	85.72	86.12	....

## Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices  
(Cents per pound)

	1953	1954	1955	1956
Jan.	121.50	84.84	87.628	104.768
Feb.	121.50	85.04	90.75	100.586
Mar.	121.415	91.24	91.065	100.524
Apr.	101.07	96.238	91.41	99.145
May	97.387	93.51	91.38	96.853
June	92.933	94.24	93.64	94.488
July	81.826	96.55	96.825	96.131
Aug.	80.69	93.381	96.456	98.924
Sept.	82.275	93.536	96.256	....
Oct.	80.897	93.00	96.075	....
Nov.	83.26	91.099	97.882	....
Dec.	84.693	88.571	107.75	....
Av.	95.787	91.77	94.73	....

## Monthly Tin Production at Longhorn Smelter

(From Concentrates)

(In tons of 2,240 pounds)

	1953	1954	1955	1956
Jan.	4,000	2,700	2,402	1,754
Feb.	3,400	3,008	2,505	1,704
Mar.	3,850	3,559	2,353	1,802
Apr.	3,750	3,006	2,103	1,803
May	3,100	2,054	1,604	2,001
June	3,000	1,205	851	953½
July	3,000	NIL	950	....
Aug.	2,600	2,002	1,749	....
Sept.	2,700	2,404	1,751	....
Oct.	2,751	2,404	1,803	....
Nov.	2,750	2,404	1,803	....
Dec.	2,750	2,404	2,453	....
Total	37,651	27,150	22,327	....

## Quicksilver Averages

N. Y. Monthly Averages

Virgin, Dollars per 76-lb. Flask

	1953	1954	1955	1956
Jan.	214.88	189.60	324.68	277.88
Feb.	207.37	190.00	324.68	270.29
Mar.	199.92	201.63	322.61	261.40
Apr.	197.90	221.36	318.14	267.22
May	196.50	251.20	306.62	267.675
June	193.42	273.46	286.98	260.69
July	192.21	287.40	268.22	256.06
Aug.	190.42	290.71	255.18	256.00
Sept.	187.04	314.08	263.70	....
Oct.	184.62	329.50	279.02	....
Nov.	186.00	321.17	282.50	....
Dec.	188.38	319.96	282.27	....
Av.	194.89	265.84	292.90	....



## Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	Short tons	Value f. o. b. plant	Stocks end of month short tons
1955					
May	13,949	131,128	133,025	57,605,872	12,052
June	12,052	127,634	127,056	55,009,348	12,630
July	12,630	132,669	128,961	55,822,814	16,338
August	16,338	133,551	136,472	59,965,645	13,417
September	13,417	130,606	134,125	60,205,054	9,898
October	9,898	134,655	128,116	57,924,207	16,437
November	16,437	133,689	135,953	61,464,364	14,173
December	14,173	140,748	139,901	63,319,738	15,020
1956					
January	15,020	140,394	135,598	\$61,362,549	19,816
February	19,816	132,763	135,505	61,284,856	17,074
March	17,074	145,895	143,729	65,043,396	19,240
April	19,240	144,726	149,854	70,479,739	14,112
May	14,112	150,800	153,014	73,940,389	11,898
June	11,898	145,726	140,225	67,775,239	17,399
July	17,399	151,624	134,098	64,858,158	34,925

## Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS

(Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes Tube Blooms & Tubing	Powder, Flake, & Paste
1952 Total	1,924,750	1,085,699	443,546	347,542	47,963
1953 Total	2,286,865	1,368,165	422,946	451,922	44,732
1954 Total	2,088,439	1,165,090	357,229	518,070	46,255
1955					
March	234,730	128,432	31,051	71,981	3,266
April	227,939	123,293	29,835	72,017	2,794
May	234,309	125,176	30,979	75,371	2,813
June	255,701	136,420	35,306	74,792	3,035
July	210,222	113,305	27,070	62,918	2,379
August	250,036	141,400	29,413	67,904	3,039
September	244,135	134,240	32,973	67,407	2,926
October	248,806	138,328	30,554	71,456	2,926
November	245,256	137,109	31,656	67,798	2,658
December	242,993	138,592	31,802	64,159	1,837
Total	2,805,500	1,542,368	365,391	812,311	35,854
1956					
January	251,772	142,049	34,008	67,499	2,118
February	240,999	134,077	33,727	65,261	1,901
March	232,767	128,432	30,972	63,482	1,947
April	260,610	143,859	37,971	69,639	3,316
May	264,378	147,613	39,900	68,106	2,215
June	240,415	132,510	33,438	65,600	2,119
July	209,096	113,305	27,070	61,792	2,379

## Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

	(Thousands of Pounds)	Total	Sand	Permanent Mold	Die	All Other
1951 Total	515,131	193,378	160,011	151,465	10,277	
1952 Total	518,979	194,616	146,883	169,732	7,748	
1953 Total	658,022	214,553	200,025	239,330	4,114	
1954						
December	64,054	13,753	23,629	26,017	646	
1955						
January	64,414	13,358	23,679	26,819	558	
February	66,869	13,579	24,319	28,234	737	
March	78,958	16,019	29,029	33,229	682	
April	73,049	14,041	28,028	30,208	772	
May	71,691	14,235	25,597	31,243	616	
June	68,473	14,920	24,682	27,939	932	
July	55,033	11,716	21,006	21,656	655	
August	64,864	14,916	22,267	27,004	576	
September	67,170	14,870	23,075	28,532	693	
October	72,197	14,485	25,135	31,741	836	
November	75,065	14,327	26,267	33,852	619	
December	75,275	15,291	25,031	34,347	606	
1955 Total	833,058	171,757	298,115	354,804	8,282	
1956						
January	74,152	15,861	24,528	33,253	510	
February	73,096	15,560	23,963	32,949	624	
March	73,785	16,597	22,816	33,965	407	
April	67,880	14,732	20,718	31,782	648	
May	65,786	15,600	19,669	29,814	703	
June	58,717	13,976	19,067	25,027	647	

METALS, SEPTEMBER, 1956

## Virgin Aluminum

Virgin 99% Delivered  
Monthly Average Prices

	(Cents per pound)			
	1953	1954	1955	1956
Jan.	20.173	21.50	22.90	24.40
Feb.	20.50	21.50	23.20	24.40
Mar.	20.50	21.50	23.20	24.60
Apr.	20.50	21.50	23.20	25.90
May	20.50	21.50	23.20	25.90
June	20.50	21.50	23.20	25.90
July	20.962	21.50	23.20	25.90
Aug.	21.50	22.12	24.26	26.70
Sept.	21.50	22.20	24.40	....
Oct.	21.50	22.20	24.40	....
Nov.	21.50	22.20	24.40	....
Dec.	21.50	22.20	24.40	....
Av.	20.928	21.785	23.655	....

## Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1953	1954	1955	1956
Jan. ..	1,313	972	1,776	2,118
Feb. ..	1,601	1,136	1,648	1,901
Mar. ..	1,601	1,136	1,947	1,946
Apr. ..	1,708	892	1,756	2,279
May ..	1,699	1,129	1,836	2,462
June ..	1,192	1,312	1,686	2,302
July ..	1,589	1,032	1,437	2,002
Aug. ..	1,433	1,111	1,742	....
Sept. .	1,254	1,183	2,159	....
Oct. ..	1,409	1,002	1,667	....
Nov. ..	1,314	1,243	1,955	....
Dec. ..	919	1,673	1,577	....

Total .16,885 13,743 21,186 .....

## Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1953	1954	1955	1956
Jan.	193.00	200.00	170.00	170.00
Feb.	200.00	170.00	170.00	170.00
Mar.	200.00	170.00	170.00	170.00
Apr.	200.00	170.00	170.00	170.00
May	200.00	170.00	170.00	170.00
June	200.00	170.00	170.00	170.00
July	200.00	170.00	170.00	170.00
Aug.	200.00	170.00	170.00	170.00
Sept.	200.00	170.00	170.00	....
Oct.	200.00	170.00	170.00	....
Nov.	200.00	170.00	170.00	....
Dec.	200.00	170.00	170.00	....
Av.	199.44	172.50	170.00	....

# Steel Ingot Production

(American Iron and Steel Institute)

(American Iron and Steel Institute)								Calculated	
Period	Estimated Production —		All Companies		ELECTRIC		TOTAL	weekly production, all	
	OPEN HEARTH	BESSEMER	ELECTRIC	TOTAL	Net tons of capacity	Net tons of capacity	Net tons of capacity	companies (net tons)	
	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity	companies (net tons)	
1952 Total	82,846,439	87.2	3,523,677	65.5	6,797,923	82.6	93,168,039	85.8	1,782,097
1953 Total	100,473,823	97.9	3,855,705	83.2	7,280,191	71.1	111,609,719	94.9	2,140,578
1954 Total	80,827,494	73.6	2,548,104	53.2	5,436,054	52.0	88,311,652	71.0	1,693,741
1955									
April	8,858,549	97.7	275,069	69.8	681,477	76.6	9,815,095	94.8	2,287,901
May	9,307,291	99.4	305,347	75.1	718,678	77.9	10,328,316	96.6	2,881,443
June	8,754,430	96.6	283,544	72.0	698,493	78.6	9,746,467	94.1	2,271,904
July	8,232,535	88.1	268,348	66.1	600,063	65.5	9,100,946	85.3	2,069,088
August	8,600,612	91.3	298,872	73.5	694,961	75.7	9,594,545	89.7	2,165,812
September	8,829,266	97.6	307,171	73.2	745,888	84.1	9,882,325	95.7	2,308,954
October	9,369,704	100.0	330,150	81.2	801,196	87.3	10,501,050	98.2	2,370,440
November	9,141,244	100.8	306,674	77.9	799,480	89.9	10,247,398	99.0	2,388,671
December	9,390,000	100.5	292,000	72.0	786,000	85.8	10,468,000	98.1	2,368,000
Total	105,342,886	95.6	3,319,088	69.3	8,338,592	77.2	117,000,566	93.0	2,248,969
1956									
January	9,676,151	101.4	323,235	79.5	828,845	86.6	10,828,231	99.3	2,444,296
February	9,043,064	101.3	296,543	78.0	779,388	87.1	10,118,995	99.2	2,444,292
March	9,795,263	102.7	310,060	76.3	819,465	85.7	10,924,788	100.2	2,446,032
April	9,437,945	102.2	306,888	77.9	779,452	84.2	10,623,785	99.7	2,455,097
May	9,370,167	98.2	297,990	73.3	822,219	86.0	10,490,376	96.2	2,368,031
June	8,665,044	93.9	282,846	71.9	773,546	83.6	9,721,436	92.1	2,266,069
July	1,330,151	13.9	.....	.....	292,012	30.5	1,622,163	14.9	367,005
August	7,215,000	75.6	190,000	46.7	743,000	77.7	8,148,000	74.7	1,839,000

# Steel Ingot Operations

(Percentage of Capacity as Reported by American Iron & Steel Institute)

Week	Beginning	1953	1954	1955	1956
Jan. 2...	98.2	75.4	81.2	97.6	
Jan. 9...	99.3	74.3	83.2	98.6	
Jan. 16...	99.7	74.1	83.2	99.0	
Jan. 23...	99.4	75.6	85.0	100.4	
Jan. 30...	97.7	74.4	85.4	99.3	
Feb. 6...	99.7	74.4	86.8	99.1	
Feb. 13...	99.1	74.6	89.1	98.8	
Feb. 20...	99.4	73.6	90.8	98.8	
Feb. 27...	100.3	70.7	91.9	99.9	
Mar. 5...	101.3	69.3	92.9	100.0	
Mar. 12...	101.5	67.6	94.2	100.6	
Mar. 19...	103.1	68.1	93.7	99.5	
Mar. 26...	97.1	69.1	94.4	99.6	
Apr. 2...	98.9	68.0	95.3	97.7	
Apr. 9...	98.8	68.0	94.6	100.9	
Apr. 16...	101.0	68.6	94.6	100.2	
Apr. 23...	100.3	68.7	95.6	100.5	
Apr. 30...	100.2	69.4	96.6	96.4	
May 7...	100.3	70.9	97.2	95.2	
May 14...	99.8	71.8	96.9	95.3	
May 21...	100.3	71.2	96.4	97.3	
May 28...	99.6	70.2	95.8	96.3	
June 4...	97.9	73.2	94.7	96.7	
June 11...	96.8	72.3	96.0	93.4	
June 18...	96.8	72.1	95.0	93.0	
June 25...	91.8	65.8	71.1	84.9	
July 2...	92.8	60.0	85.9	12.3	
July 9...	94.7	64.3	91.2	12.9	
July 16...	94.4	65.3	91.0	14.6	
July 23...	92.6	64.2	90.7	17.0	
July 30...	94.0	64.0	86.9	16.9	
Aug. 6...	95.2	64.0	89.4	57.5	
Aug. 13...	95.9	61.8	90.2	87.5	
Aug. 20...	93.4	63.5	90.6	95.8	
Aug. 27...	90.5	64.0	93.4	97.0	
Sept. 3...	89.2	63.0	93.8	98.7	
Sept. 10...	91.4	66.3	95.7	100.6	
Sept. 17...	95.1	68.7	96.1	99.6	
Sept. 24...	95.3	70.4	97.0	...	
Oct. 1...	95.2	71.0	96.7	...	
Oct. 8...	96.3	72.8	96.5	...	
Oct. 15...	95.0	73.6	98.9	...	
Oct. 22...	94.6	74.5	100.0	...	
Oct. 29...	93.0	76.4	99.4	...	
Nov. 5...	92.3	77.2	99.6	...	
Nov. 12...	90.7	79.3	99.2	...	
Nov. 19...	86.8	80.3	100.1	...	
Nov. 26...	87.5	81.4	97.6	...	
Dec. 3...	86.7	82.5	100.1	...	
Dec. 10...	84.3	81.5	100.3	...	
Dec. 17...	64.1	72.4	96.9	...	
Dec. 24...	75.7	77.6	95.7	...	
Dec. 31...	...	...	...	...	

## Blast Furnace Output

(American Iron and Steel Institute)

Period	net tons		Total Capacity	% of Capacity
	Pig Iron	Ferro-manganese & Spiegel		
1947				
Ttl. Yr.	58,507,169	702,561	59,209,730	90.1
1948				
Ttl. Yr.	60,135,941	712,899	60,848,840	90.2
1949				
Ttl. Yr.	53,613,779	592,564	54,206,343	76.9
1950				
Ttl. Yr.	64,810,272	673,896	65,484,168	91.5
1951				
Ttl. Yr.	70,487,380	745,381	71,232,761	98.8
1952				
Ttl. Yr.	61,528,665	629,926	62,158,591	84.2
1953				
Total	74,987,721	855,038	75,842,759	95.5
1954				
Mar. ...	4,907,147	52,156	4,959,303	71.2
Apr. ...	4,449,289	53,277	4,502,566	66.7
May ...	4,572,252	52,187	4,624,439	66.4
June ...	4,683,629	40,521	4,724,150	70.0
July ...	4,590,078	36,108	4,626,186	66.8
Aug. ...	4,629,291	37,744	4,667,035	71.0
Sept. ...	4,417,888	43,924	4,461,812	68.3
Oct. ...	4,937,426	46,244	4,983,670	71.5
Nov. ...	5,204,446	52,454	5,256,900	77.9
Dec. ...	5,526,720	59,793	5,586,513	80.4
Total	68,119,382	568,735	68,688,117	71.6
1955				
Jan. ...	5,729,404	55,249	5,784,653	81.1
Feb. ...	5,394,585	48,182	5,442,767	84.5
Mar. ...	5,406,902	57,049	5,463,951	90.6
Apr. ...	5,359,927	64,712	5,424,639	92.4
May ...	5,783,235	51,699	5,834,935	95.4
June ...	5,495,050	48,735	5,543,785	94.7
July ...	5,329,393	41,166	5,370,559	89.8
Aug. ...	5,659,850	71,902	5,731,752	92.5
Sept. ...	5,653,578	49,788	5,703,366	97.8
Oct. ...	5,905,280	59,993	5,965,273	97.6
Nov. ...	5,636,449	62,341	5,698,790	97.0
Dec. ...	5,887,667	65,849	5,953,516	97.7
Total	77,114,073	868,758	77,982,831	92.7
1956				
Jan. ...	5,985,945	63,619	6,049,564	97.1
Feb. ...	5,539,199	63,618	5,602,817	97.2
Mar. ...	7,083,877	65,566	7,149,443	98.5
Apr. ...	6,860,583	63,760	6,924,343	98.6
May ...	6,873,102	47,840	6,920,942	95.3
June ...	6,387,608	46,981	6,434,589	91.6

## Steel Castings Shipments

(Bureau of Census)

Period	(Short Tons)		For Own Use
	Total	For Sale	
1950	1,461,667	929,192	374,217
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953	1,829,277	1,290,016	431,330
1954			
Mar. ...	122,310	92,271	30,039
Apr. ...	105,788	78,754	27,034
May ...	94,610	70,596	24,014
June ...	100,022	72,881	27,141
July ...	75,848	53,207	22,641
Aug. ...	89,590	66,792	22,798
Sept. ...	88,359	64,722	23,637
Oct. ...	87,085	64,004	23,081
Nov. ...	87,659	64,812	22,847
Dec. ...	93,547	69,843	23,704
Total	1,184,096	880,158	303,938
1955			
Jan. ...	98,238	75,044	23,194
Feb. ...	106,430	80,729	25,701
Mar. ...	127,460	98,926	28,534
Apr. ...	120,053	92,237	27,816
May ...	122,465	92,713	29,752
June ...	133,887	102,457	31,430
July ...	97,875	71,170	26,705
Aug. ...	126,406	96,290	30,116
Sept. ...	140,843	107,622	33,221
Oct. ...	145,674	110,409	35,265
Nov. ...	152,381	116,908	35,473
Dec. ...	158,982	122,201	36,781
Total	1,530,694	1,166,706	363,988
1956			
Jan. ...	158,618	123,343	35,275
Feb. ...	165,398	128,598	36,800
Mar. ...	170,045	130,839	39,206
Apr. ...	163,708	125,015	38,693
May ...	178,227	142,025	36,202
June ...	164,661	129,147	35,514

## GALVANIZED SHEET SHIPMENTS

(American Iron & Steel Institute)

Period	(Net Tons)		1955	1956
	1953	1954		
Jan. ...	201,472	169,086	211,101	269,464
Feb. ...	183,503	167,433	199,408	272,997
Mar. ...	204,995	180,198	238,649	291,193
Apr. ...	196,656	203,312	239,001	266,728
May ...	189,765	201,671	235,962	272,741
June ...	184,862	200,456	246,940	279,058
July ...	186,896	214,349	205,211	.....
Aug. ...	187,741	207,113	241,863	.....
Sept. ...	194,257	209,765	269,020	.....
Oct. ...	208,705	209,498	260,010	.....
Nov. ...	177,891	195,190	255,092	.....
Dec. ...	176,375	205,561	261,640	.....
Total	2,290,868	2,362,632	2,864,497	.....

## SHIPMENTS of TIN-TERNE PLATE

(American Iron & Steel Institute)

	Hot Dipped		Electrolytic	
	1955	1956	1955	1956
Jan. ...	82,874	81,034	335,682	402,627
Feb. ...	88,189	77,877	344,467	404,193
Mar. ...	94,434	138,257	419,574	598,129
Apr. ...	89,492	128,556	441,194	554,576
May ...	126,579	70,282	481,805	354,204
June ...	130,603	84,371	520,305	466,060
July ...	76,473	.....	291,405	.....
Aug. ...	111,482	.....	441,201	.....
Sept. ...	116,295	.....	471,624	.....
Oct. ...	60,355	.....	249,790	.....
Nov. ...	59,269	.....	240,503	.....
Dec. ...	65,363	.....	263,087	.....
Total	1,007,760	.....	4,508,627	.....

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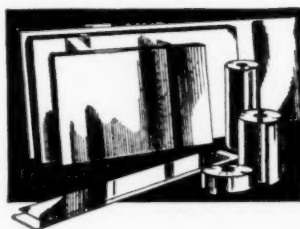
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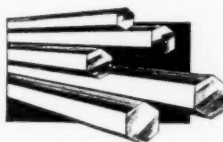
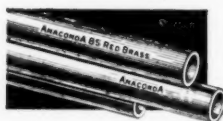
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